

GALEN AND CHRYSIPPUS  
ON THE SOUL

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TEUN TIELEMAN

GALEN AND CHRYSIPPUS ON THE SOUL

ARGUMENT AND REFUTATION IN  
THE *DE PLACITIS* BOOKS II-III



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TEUN TIELEMAN



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*For Linda, Laurens and Sebastiaan*



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## PREFACE

This book is a revised edition of my 1992 doctoral dissertation entitled *Galen and Chrysippus: Argument and Refutation in the De Placitis Books II-III*. It records the results of a research project which started from a simple question: exactly which procedures does Galen follow in quoting from the otherwise lost *On the soul* of the Stoic scholar Chrysippus? Or, from an opposite viewpoint, what purport and status did the quoted passages have in their original Chrysippean context? An answer to these questions may be expected to provide a deeper insight into this rich material which stands out among the scanty remains of the work of this important Stoic philosopher. The two viewpoints involved here determine the overall structure of this book, which divides into two main parts. The first part considers the text from Galen's point of view, whereas the second takes Chrysippus' perspective. Part One is designed as a foil for the subsequent treatment of the Chrysippean fragments in Part Two, but it can also be read in isolation by those interested in Galen's methodology for its own sake.

This book is a revised doctoral thesis, so it is appropriate that I say something about the kind of revisions I have undertaken, particularly since the earlier version was circulated among colleagues at home and abroad. In general I have taken the opportunity to update my references: several studies bearing on the concerns of this book were published after I had finished my dissertation. But my conclusions have remained unaltered. In particular, my account in Part Two of the historical relation between the concepts of dialectic of Chrysippus and Carneades is in all essentials the same as that expounded in my 1992 dissertation. Part One, on the other hand, has been revised and expanded to a greater degree. Part of the reason lies in the fact that I have become increasingly aware of the close similarities between Galen's argument and the methodological disquisitions found in such authors as Cicero, Clement of Alexandria, Alexander of Aphrodisias and Boethius—affinities which in my view strengthen the case for Galen's dependence on the ancient tradition concerned with the Aristotelian 'topics', a point that I did not pursue to the same extent in my dissertation. This recognition has induced me to place Galen's argumentative

techniques more systematically in the context of the relevant dialectical traditions, which entailed certain alterations in the mode of presentation of my argument. But the main positions taken earlier have not been abandoned.

In recent years I had the opportunity to lecture on topics discussed in this book before academic audiences in various places (Utrecht, Leiden, Pavia, Princeton, Rutgers, Austin). Two of the papers delivered on such occasions have also appeared in print (Tieleman [1995a], [1995c]). My many intellectual debts to other scholars should be clear from the references to their work throughout my book, and I hope to have acknowledged them in an adequate manner. In the course of this project I have profited from the generous and acute criticisms of Professors Jaap Mansfeld, Jim Hankinson, David Runia and J.C.M. van Winden. To discussions over the years with Keimpe Algra and Han Baltussen, two other members of the Utrecht team, I am indebted for much inspiration regarding the study of later ancient philosophy. Mrs. G. Runia-Deenick did an excellent job producing the final desk-top version.

Of course, I claim sole responsibility for such errors as remain.

The ambiguous existence led by my dissertation over the past years comes to an end with the appearance of the present edition. I want to express my gratitude to the editors of *Philosophia Antiqua* for accepting this study for publication in their series.

Leeuwarden  
29 September 1995

Teun Tieleman

## ABBREVIATIONS

- ANRW** W. Haase - H. Temporini (eds.), *Aufstieg und Niedergang der römischen Welt*, Berlin 1972-
- DG** H. Diels, *Doxographi Graeci*, Berlin 1958 (=1879)
- DK** H. Diels - W. Kranz, *Die Fragmente der Vorsokratiker*, 3 vols., Berlin 1960<sup>10</sup>
- FDS** K.-H. Hülser, *Die Fragmente zur Dialektik der Stoiker*, Stuttgart 1987-1988
- FHS&G** W.W. Fortenbaugh - P.M. Huby - R.W. Sharples - D. Gutas, *Theophrastus of Eresus: Sources for his Life, Writings and Influence*, 2 vols., Leiden etc. 1992.
- LS** A.A. Long - D.N. Sedley, *The Hellenistic Philosophers*, 2 vols., Cambridge 1987.
- LSJ** H. G. Liddell - R. Scott - H. Stuart Jones, *A Greek-English Lexicon*, Oxford 1968 (=1940<sup>9</sup>)
- RE** *Pauly's Real-Encyclopädie der Altertums-Wissenschaft*, herausg. von G. Wissowa, Stuttgart 1894 etc.
- SVF** J. von Arnim, *Stoicorum Veterum Fragmenta*, 3 vols., Leipzig 1903-5; vol. 4, indexes by M. Adler, Leipzig 1924

## NOTICE TO THE READER

When quoting Greek texts, I have used the modern standard editions: the Oxford Classical Texts for Plato, Aristotle and Diogenes Laertius (D.L.), the Loeb editions for Plutarch and Sextus Empiricus and the Berlin edition of the *Commentaria in Aristotelem Graeca* for the Greek commentators on Aristotle. For other authors see the editions referred to in the *Index locorum*. For Galen I have used the editions available in the *Corpus Medicorum Graecorum* (CMG); for instance, references to the *De placitis Hippocratis et Platonis* (PHP) give book-, chapter- and paragraph-numbers in De Lacy's edition in the CMG series (Berlin 1978-84). Further I have used the Teubner editions of the *Scripta Minora* (SM) by Marquardt, Von Müller and Helmreich and that of the *De usu partium* (UP) by

Helmreich. In all other cases the still indispensable *Opera Omnia* edition by K.G. Kühn (20 vols. Leipzig 1821-1833, repr. Hildesheim 1964-1965) has been used.

In general the names of ancient authors and the titles of their works are abbreviated according to *LSJ* and the *Oxford Latin Dictionary*. For Galen, *LSJ* specifies no individual works and no single system of abbreviations has as yet imposed itself as standard. I use the abbreviations proposed by R.J. Hankinson (1991c), Appendix 2 ('A guide to the editions and abbreviations of the Galenic corpus'). Most of these are self-explanatory; but if needed, some assistance is given by the *Index locorum* at the end of this volume.



## GENERAL INTRODUCTION

### 1. *Aim and Method of the Study*

In August of the year 162 Galen of Pergamum (129-c.210 CE) took up residence in Rome, where he hoped to establish a reputation as a practitioner and theorist of medicine. As part of his campaign of self-advertisement, he performed anatomical experiments before members of the Roman upper class, other doctors and philosophers.<sup>1</sup> Most sensational were those designed to demonstrate the structure and workings of the nervous system. Galen thereby entered the long-standing controversy over the seat of the 'ruling part' (ἡγεμονικόν) of the soul, or intellect.<sup>2</sup> He was convinced that his experiments decided the issue in favour of Plato's tripartite theory: reason resides in the brain, anger in the heart and desire in the belly (specified by Galen as the liver). This meant defeat (or so he thought) for those who located the main psychic functions in the heart—the Peripatetics, most of the Stoics and a number of physicians.<sup>3</sup>

The discussions Galen had with his contemporaries about the psychic functions and their location are reflected in books

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<sup>1</sup> On Galen's first Roman sojourn (162-166 CE) we are informed by his *On prognosis*, ed. V. Nutton (CMG V 8.1) in particular; cf. esp. 5.9-21 recounting one of his anatomical performances; cf. also *Lib. Prop. SM* vol. II, p.101.2 ff. Müller. On chronological problems see Nutton (1973) 158 ff. On his demonstrations see further H. von Staden, 'Anatomy as rhetoric: Galen on dissection and persuasion', *Journal of the History of Medicine and Allied Sciences* 50 (1995) 48-67; A. Debru, 'Les démonstrations médicales à Rome au temps de Galien', in Van der Eijk *et al.* (1995) vol. 1, 69-81. In the same period Galen wrote several anatomical tracts (now lost), including one concerned with vivisection, *AA* II 215-7 K. On the competition among the Roman medical profession cf. his treatise *How to recognize the best physicians* (*Opt. Med. Cogn.*, CMG Supp. Or. IV, ed. Z. Iskandar), with V. Nutton, 'The patient's choice: a new treatise by Galen', *CQ* 40 (1990) 236-57; and his (lost) autobiographical tract *On slander*, *Lib. Prop.* II, p.122.2 M. On Galen as a figure in Roman society see J. Ilberg, 'Aus Galens Praxis', *Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Literatur* XV (1905) 276-312, repr. in H. Flashar (ed.), *Antike Medizin* (Darmstadt 1971) 361-461; G.W. Bowersock, *Greek Sophists in the Roman Empire* (Oxford 1969) 59-76; J. Kollesch, 'Galen und die zweite Sophistik', in Nutton (1981) 1-11.

<sup>2</sup> On this debate, with a heavy concentration on the doxographic material, see the compendious investigation of Mansfeld (1990b), *id.* (1991).

<sup>3</sup> See e.g. *PHP* VII 1.1-4.

I-VI<sup>4</sup> of his *On the Doctrines of Hippocrates and Plato* (hereafter: *PHP*), a wide-ranging treatise which promulgates a high-minded, philosophically grounded ideal of medicine. Here we find reports of his experiments concerned with the nervous system. From a modern point of view, they may certainly rank among the most sophisticated and advanced known from antiquity. Exploring the spinal column and nerves and describing the effects of sections in various places, Galen seems to inaugurate a new era, putting the questions at issue in a properly scientific context at a time when it was still acceptable to refer to popular notions and venerable men of old.<sup>5</sup> Yet this modernistic picture of Galen's achievement, though not entirely unjustifiable, is also a bit blithe; it should be both nuanced and amplified in the interest of a more properly historical account. In particular, it should be acknowledged that the experimental reports are embedded within a wider argumentative framework which conditions their scope and function in important ways (cf. § 4). How, for instance, do the experiments relate to Galen's project of proving the Platonic tripartition correct?

In *PHP* I-III we encounter not only Galen the anatomist and experimenter but also the dialectician and theorist of science. In the introductory section of book II (1-4.4) he is quite explicit about his demonstrative method and its models and in the discussion that follows methodological concerns continue to feature prominently. In a sense, the question of the seat of the psychic functions he uses as a test-case for the effectiveness of his method. In consequence, these books are an important quarry for the study of Galen's methodology. In the background stands his (lost) *magnum opus* on scientific method, *On Demonstration* (Περὶ ἀποδείξεως, in 15 books), written not long before the *PHP* and four times referred to (II 2.3, 2.23, 3.1, 3.26).<sup>6</sup> We may compare the first two books of his therapeutic *chef d'oeuvre*, *On the Therapeutic Method*, whose explication of the 'logical method' also seems to build upon what he had earlier set out in the *Dem.* (cf. *MM* I, X 39 K.). But unlike these

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<sup>4</sup> Of Book I we possess only the closing sections, which on De Lacy's estimation amount to about one third of the original whole, which must have been rather long; see De Lacy (1978-84) vol. 1, 12-13.

<sup>5</sup> For modern assessments of Galen's experiments cf. Debru (1994) 1719 f.

<sup>6</sup> Von Müller (1897) provides a survey of its contents based on references in the extant works. His compilation offers a wealth of material relating to Galen's theory of scientific demonstration. On *Dem.* and Von Müller's reconstruction see now also Barnes (1991) 67-9.

books, the first books of the *PHP*, with their anatomical and physiological subject-matter, still await examination from a philosophical point of view.<sup>7</sup>

Galen's experiments and methodological statements are not the only striking features of these books. No less intriguing are his extensive verbatim quotations from the otherwise lost *On the soul* (Περὶ ψυχῆς) by the Stoic scholarch Chrysippus of Soloi (c. 280-205 BCE).<sup>8</sup> Galen uses these passages not only as proof-texts for his criticisms, but also as stepping-stones to further his own argument. Amidst the miserable debris of Chrysippus' original writings, these fragments provide rich yet underused material which is directly relevant to the study of the psychology, dialectic and other facets of Stoic philosophy. On the other hand, we have to acknowledge certain problems and limitations due to the fact that the selections from Chrysippus' text are subject to the pull of Galen's polemical and dialectical procedures. Moreover, we have no other sources at our disposal to check Galen's claims and assess his selections.<sup>9</sup>

Apart from Stoic material preserved elsewhere, the study of the Chrysippean text therefore involves that of its Galenic context. 'Cóntext' here should be taken in a rather wide sense: one should not merely look at the introductory formulas and comments surrounding the quotations (which are also printed by Von Arnim in his *SVF*) but also acquaint oneself with Galen's aims and methods in the course of his whole argument, some of which are likely to reflect traditional ways of responding to Stoic positions and arguments. Likewise, we also face the task of reconstructing the doctrinal and dialectical context of Chrysippus' argument in view of Stoic fragments and testimonies preserved by a wide variety of other sources.

Given the nature of the Galenic text, it is rewarding, indeed mandatory, to investigate the argument of one thinker while constantly looking at the other. This is what will be attempted in the present study. I have already indicated why this approach is relevant and important for early Stoic studies. As to Galen, it

<sup>7</sup> On *MM* books I and II see Hankinson (1991c); Barnes (1991).

<sup>8</sup> Fragments (with information from the Galenic context) assembled by Von Arnim as *SVF* II 879-910; 911 constitutes his reconstruction of the second half of book I. See further *infra*, p. 136 ff.

<sup>9</sup> See further *infra*, 136 n. 11.

should be said that the present inquiry will be conducted in the light of a number of recent studies which have thrown much light on the specific nature of Galen's philosophy, in particular on the methodological assumptions that underlie his distinctive philosophical outlook (see § 2). Arguably, most of Galen's original contributions are to be located in the field of methodology. This justifies the selection of *PHP* II-III for the reasons we have indicated.

In the present state of Galenic studies it makes good sense to subject one particular treatise, or one part of a treatise, to a careful examination. The revival of interest in Galen among historians of Greek philosophy is a fairly recent phenomenon. Existing accounts are often based on larger selections from his writings. The time has now come to supplement this picture of his thought and achievement with studies of a more detailed kind. Moreover, the problem of the coherence and development of his thought, concerning which as yet little is known, is best approached on the basis of more detailed studies such as the one embarked on here.

It goes without saying that, in examining *PHP* II-III, one should take account of Galen's psychological views as well.<sup>10</sup> The main focus, however, will be on his methodology. For this reason the chief area of concern of the first part of this study will be to *investigate the nature of Galen's argument against its historical and cultural background*. Questions that we shall pose are: what procedures is he following? how far is he applying a coherent methodology? how are his dialectical techniques related to his anatomical experiments? Further, we should try and form a picture of the background provided by the literary traditions involved, comparing, notably, the *genre* of philosophical polemic (cf. Plutarch's anti-Stoic treatises) as well as doxographic compilations. Included in the above questions is the more specific one of the role played by Galen's extensive quotations from Chrysippus and other philosophers. It is only when we have resolved all these issues that we will be in a position to understand and explain Galen's judgements on the Stoic philosopher's mode of argument.

In speaking about his method Galen appeals to the treatises of the Aristotelian *Organon* (as well as to Theophrastus' lost *Second Analytics*).<sup>11</sup> It is highly improbable that he studied these difficult

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<sup>10</sup> On Galen's psychology see in particular Manuli and Vegetti (1988) and Hankinson (1991b) and (1992b).

<sup>11</sup> *PHP* II 2.4; cf. 3.12, 3.23-4. On Galen's commentaries on some of these

treatises without being aided and affected by the interpretations and commentary literature available in his day. It is only when we have sufficient knowledge of the literary and scholastic traditions involved that we can isolate what is peculiar to him from what is traditional. One does not want to present as distinctively, or even brilliantly, Galenic what, for instance, one can read in Platonist textbooks of this period.

In Part Two I shall investigate the nature of Chrysippus' method, paying special attention to its argumentative and epistemological aspects—which also involves the structure of the great Stoic's argument. We shall exploit the insights into the methodological scheme constituting the context of the fragments gained in Part One. Several questions raise themselves: what kinds of argument does Chrysippus use? who and what are the targets of his criticism? what epistemological status do his arguments have? how does he reach his conclusions? what is the role of medical science in his arguments? In order to answer these questions a rather detailed examination of the rich material will be necessary, if only because of the lack of detailed scholarly work done on these fragments.

## 2. *Galen and Greek Philosophy*

Galen's voluminous writings are a *mer à boire* for historians of ancient medicine, society and philosophy alike. But only in recent years have historians of ancient philosophy set out to study him as a philosopher in his own right. This line of approach has long been discouraged by inveterate preconceptions relating to his 'eclecticism' and elusive double role as a doctor and philosopher. The traditionally pejorative term 'eclectic' (whose Greek equivalent is only occasionally found in ancient authors) has been often used by modern historians to label philosophers of the first two centuries CE. This label, like its counterpart 'orthodox', has always had a derogatory ring: it connoted lack of originality, lack of systematical coherence and other things less commendable in a philosopher. During the past few decades, however, the label has fell more and more into disuse in direct proportion to the increase in work done on the period. Through an extended process of syncretism, the cultural ambiance of authors like Plutarch, Galen and

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treatises, cf. *infra*, p. 3 f.

others had assimilated many elements from various schools to the point where they were no longer felt to be distinctive of these schools. The procedure of ferreting out 'Platonisms', 'Stoicisms' and 'Aristotelianisms' in the philosophical writings of the period is barren precisely because it fails to take account of the implications of this process of syncretism.

This general re-appraisal has also facilitated a proper understanding of Galen's peculiar position. Moreover, insofar as he shows a selective attitude vis-à-vis the different philosophical schools, this is now recognized as rooted in a well-considered concept of science and its methods.<sup>12</sup> Thus he refrained from pronouncing on a number of issues which traditionally kept the schools divided: the substance and immortality of the soul, the nature of God etc. These questions he considered unsolvable in the absence of any means of empirical testing. Ironically, this insistence on empirical verifiability, which used to render his claim to philosophical respectability suspect, adds considerably to his present appeal among historians of ancient thought.

The bias attached to Galen's eclecticism has been compounded by his medical capacity,<sup>13</sup> which seems to consign him to the

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<sup>12</sup> Galen uses the word from which our term 'eclecticism' has been derived in a relevant and favourable context: see *Lib. Prop. SM II* p. 94.26 ff. Müller: βάσκανος δὲ καὶ φιλόνεικος [...] ἀνὴρ [...] ἤρετο τινα τῶν φίλων, ἀπὸ ποίας εἶην αἱρέσεως. ἀκούσας δ' ὅτι δούλους ὀνομάζω [-οιμι coni. Marquardt] τοὺς ἑαυτοὺς ἀναγορεύσαντας Ἱπποκρατεῖους ἢ Πραξαγορεῖους ἢ ὅλως ἀπὸ τίνος ἀνδρός, ἐκλέγοιμι δὲ τὰ παρ' ἐκάστοις καλὰ ... In fact, Galen's usage here was the predominant one in the 19th century before Zeller's pejorative usage became influential; see Donini (1988a) 22 ff. The same ideal is reflected in the story how his father Nikon made him follow courses of representatives of all four main schools of philosophy, Platonism, Aristotelianism, Stoicism, Epicureanism, *Aff. Dign.* 8.3-4, p. 28.9 ff. De Boer. Nikon was quite determined: he accompanied his son and made him, in a Socratic vein, put to the test the life and doctrines of all these philosophers (*ibid.* p.28.18). We may take Donini's point that young Galen's study under representatives of four different schools reflects more common practice, see Donini (1992) 3484 n.1 An analogous case is Apollonius of Tyana, see Philostr. *Vita Ap.* I 7 with Donini (1982) 35. One may also recall Marcus Aurelius' establishment of four chairs of philosophy at Athens, one for each of the main schools (176 CE); cf. Glucker (1978) 146 ff.

<sup>13</sup> It is still interesting to compare the once influential accounts of E. Zeller, *Die Philosophie der Griechen in ihrer geschichtliche Entwicklung* (Hildesheim 1963<sup>6</sup>) 854-63, esp. 855; Überweg-Praechter, *Geschichte der Philosophie*, 11th ed. (Berlin 1920) vol. 1 (Philosophie des Altertums) 576; similarly K. Prantl, *Geschichte der Logik* (Leipzig 1855), vol. 1, 559, was led by Galen's medical profession and agnosticism about speculative issues to express a negative assessment of his claims as an original philosopher.

margin of the historiography of philosophy as a typical borderline case.<sup>14</sup> Galen's surviving work is primarily medical in character and, as we all know, he was immensely influential in the subsequent history of medicine.<sup>15</sup> However, his role and influence in antiquity present a more variegated picture. His conspectus *On my own books*<sup>16</sup> lists many treatises on philosophical subjects in a more conventional sense: morals, fundamentals of physics, logic. It is even more pertinent to recall that he was taken seriously as a philosopher by philosophers in antiquity.<sup>17</sup> Nonetheless, almost all of his more strictly philosophical work has perished. The physicians were mainly interested in the medical works, while the philosophical writings remained outside the Neoplatonist canon. As a result, we have to make do with philosophical passages and aspects in the extant medical works.

But, mindful of his dictum that the best doctor is also a philosopher, we should not be speaking as if Galen alternated between two distinct roles, one medical, another philosophical. Recent studies have done much to explain how philosophical and medical strands have been combined in his thought.<sup>18</sup> Thus Mario Vegetti

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<sup>14</sup> On the problem of canon-formation in the historiography of philosophy cf. R. Rorty, 'The historiography of philosophy: four genres', in: R. Rorty *et al.*, *Philosophy in history: Essays on the historiography of philosophy* (Cambridge 1984), esp. 70, criticizing the myth of philosophy as a self-contained eternal sector of intellectual production marked by a history of its own. Canon-formation, with its honorific use of the term 'philosophy', is the hallmark of traditional *Geistesgeschichte*; cf. *ibid.* 56 ff. esp. 58; 70 n. 73.

<sup>15</sup> In fact he acquired a status which went far beyond that of a medical scientist, cf. O. Temkin, *Galenism: Rise and Decline of a Medical Philosophy* (Ithaca and London 1973).

<sup>16</sup> *Lib. Prop. SM II* pp. 91-124 Müller.

<sup>17</sup> See Alex. Aphr. *In Top.* 549.24 Wallies where Galen is put on a par with Plato and Aristotle; *In Soph. El.* 22.7 f. Wallies; Themist. *In phys.* 114.8 ff. 144.24 Schenkl; 149.4; Simpl. *In phys.* 325.24; 573.19; 708.28; 718.14 ff. 1039.13 Diels; Philop. *In phys.* 576.13 ff. Vitelli; *De aet. mundi* 319.7; 599.23 ff. Rabe. On the evidence see also Nutton (1984); cf. Frede (1981); Barnes (1991) 54. His tracts *On the possible* and *On the First Mover* (against Aristotle) provoked a reaction from Alexander of Aphrodisias: cf. Rescher and Marmura (1969) 2, 12, 67 ff.

<sup>18</sup> The idea that philosophy and medicine to some extent overlap is by no means novel; cf. Aristotle, *Sens.* 436a17-b1 and *Resp.* 480b23-30, i.e. both at the beginning and at the end of the *Parva naturalia*. The Platonic *Timaeus* was of course a case in point. The doxographic tradition concerned with physical doctrines also includes medical views on issues that had come to be treated by physicists and physicians alike; see Mansfeld (1990b) 3058 f. In some doxographic reports we find Plato and Hippocrates conjoined with regard to the question at issue in *PHP* I-III, viz. the seat of the intellect, see *infra*, pp. xxxiv ff.

has shown how Galen envisaged an ideological role for medicine whereby those traditional parts of philosophy deemed useful for scientific and moral progress become virtually absorbed into his new concept of medicine.<sup>19</sup> In *PHP* he is concerned with the historical perspective, or justification, which belongs with this enterprise: he projects into the past a tradition of sound medicine-cum-philosophy with Hippocrates and Plato as its fountain-heads (see also § 4).

But other perspectives are equally relevant. In a pioneering study<sup>20</sup> Frede has done much to explain Galen's personal brand of syncretism. As Frede argues persuasively, his attitude to the existing philosophical schools is in large part conditioned by his reaction to the *Methodenstreit* between the Empiricist and Rationalist (or Dogmatist) schools of medicine. In this debate Galen took an intermediate position. Like the Dogmatists he accepted the value of dissection and theory formation involving hidden causes. But he wanted to avoid speculation, i.e. theories not guaranteed by empirical fact and research. So he also turned to the Empiricists for methods developed in their tradition. Put in a somewhat oversimplifying way, Galen sought to apply reason (λόγος) and experience (πεῖρα) jointly, and in particular to test what is found through reason by means of experience. Now in philosophy and medicine, it is precisely on doctrines of the speculative and unsolvable kind that the schools are divided. But many of the dogmas at issue, Galen holds, are not useful for scientific or moral progress anyway.<sup>21</sup> Thus the moral philosopher does not need to know the substance of the soul, whereas he is interested in the issue of its functions and their seat.<sup>22</sup> And so is the physician in view of its clinical implications. In consequence, Galen will not declare himself to be in favour of any of the warring schools of his day.<sup>23</sup>

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<sup>19</sup> Vegetti (1981); (1986); 'L'immagine del medico e lo statuto epistemologico della medicina in Galeno', *ANRW* 37.2 (1995) 1672-1717; and M. Isnardi Parenti, 'Techne', *PP* (1961) 257-96; cf. also Barnes (1991) 51 f.

<sup>20</sup> Frede (1981); cf. Frede (1985), esp. xx ff.

<sup>21</sup> On unprofitable issues according to Galen see also Vegetti (1986) 234 ff.

<sup>22</sup> Cf. III 1.1, VII 1.1 (= Test. Bk. One, II, second and third texts, pp. 64.26-66.2 De L.) and *infra*, p. 9. Other speculative issues on which Galen declines to take a stand are the soul's immortality and embodiment, the nature of God (as opposed to his existence), the eternity of the world, or whether the world exists in a void; see *PHP* IX 6.19-9.9; *Hipp. Vict. Morb. Ac.*, *CMG* V 9.1, p. 125; *Subst. Nat. Fac.* (= *De propriis placitis*) IV 762 K; *QAM* 3, *SM* II, p. 36.

<sup>23</sup> *Libr. Prop.* *SM* II p. 95.6 Müller; *Aff. Dig.* 5, *SM* I, p. 31.23 Marquardt; *Ord.*



On the basis of Galen's preferences in regard to various traditions and thinkers a philosophical profile may be outlined. He regards Plato as the greatest among philosophers,<sup>24</sup> but at the same time accommodates Aristotelian and Stoic logic and physics. He has little time for Epicureanism (or any atomistic or mechanistic system) or Scepticism in its radical variety. This pattern is also found among several philosophers from the Imperial Period who are usually associated with Middle Platonism.<sup>25</sup>

This brings us to another facet of Galen's position. Although he sometimes contrasts authority, or tradition, with truth, he also strives to reconcile the great masters of the past.<sup>26</sup> Here he reflects the syncretism of his age.<sup>27</sup> Antiochus of Ascalon (c. 130-68 BCE) was one influential thinker who reacted in this way to a philosophical legacy that had become diffuse and multiform (scepticism was another way of responding to it).<sup>28</sup> Its hallmark is an impatience with terminological niceties and fine conceptual distinctions. These features are familiar from Galen's writings too.

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*Lib. Prop. SM II p.80.14 ff. Müller.*

<sup>24</sup> On Galen's acquaintance with the Platonic dialogues see the survey in De Lacy (1972).

<sup>25</sup> For Galen and Middle Platonism see Dillon (1977) 339 f. De Lacy (1972); Donini (1980); (1982) 124-132; (1992). For studies of specific views of Galen against the Middle Platonist background see A.J. Festugière, 'Le compendium Timaei de Galien', *REG* 65 (1952) 97-118 (*Études de philosophie grecque*, Paris 1971, 478 ff.); M. Baltes, *Die Weltentstehung des platonischen Timaios nach den antiken Interpreten* (Leiden 1976), 63 ff.; W. Deuse, *Untersuchungen zur mittelplatonischen und neuplatonischen Seelenlehre* (Mainz 1983) 100 ff.

<sup>26</sup> On Galen's orientation towards, and harmonization of, past authorities see esp. Frede (1985) XVII-XIX; cf. Donini (1990) 3499.

<sup>27</sup> The term 'syncretism' is often used to refer to this phenomenon in ancient philosophy (and elsewhere). Its past and present usage as a historiographical concept is as troublesome as that of 'eclecticism', see Donini (1988), esp. 27 f. It has served, in an unfavourable sense, as the opposite of eclecticism, but both terms have also been used interchangeably in a neutral sense. Donini exhorts us to drop the term 'syncretism', as divorced from the intentions of the ancient authors (p.28). Hankinson (1991) xxii f. argues that the distinction should really be that an eclectic selects diverse elements from differing schools to create a new philosophy, while a syncretist attempts to show how apparently different and distinct doctrines in fact amount to the same thing; neither term should carry any particular connotation, pejorative or otherwise. He sees Galen as engaged in both activities, though perhaps more of a syncretist by temper.

<sup>28</sup> See J. Barnes, 'Antiochus of Ascalon', in J. Barnes and M. Griffin (eds.), *Philosophia Togata* (Oxford 1989) 51-96. For some similarities between the epistemological views of Galen and Antiochus see R.J. Hankinson, 'Natural criteria and the transparency of judgement: Antiochus and Galen on epistemological justification', forthcoming.

Hippocrates, Plato and other men of old entertained insights that were basically correct; scientific progress primarily consists in their elaboration.<sup>29</sup> Galen carefully avoids exposing himself to the charge of partisanship he himself never tires of levelling against his contemporaries. His admiration for Hippocrates or Plato, he intimates, is not of the uncritical, sectarian type but results from independent research, which proved the two great men broadly correct on most relevant questions.<sup>30</sup>

So Galen's independence of mind is of a backward-looking kind. He tends to stress his independence from his contemporaries, while representing himself as conversing directly with the classical authors. That is to say, he intimates that his readings are not mediated by the exegetical and scholastic traditions. And of course he understands the great past thinkers much better than their self-styled followers do.<sup>31</sup> On the one hand, he likes to present himself to us as well-educated, but at the same time he wishes to enhance his personal achievement. Hence his behaviour in acknowledging his intellectual debts is necessarily ambivalent. But in practice he treats most of his contemporaries to an icy cocktail of silence and criticism.<sup>32</sup> As far as *PHP* II-III are concerned, this should warn us not to confine our attention to Galen's own readings of Plato or Aristotle; his silence should not mislead us into disregarding later and contemporary influences.

### 3. *PHP II-III: Contents and Style*

Galen wrote the first six books of *PHP* between 162-166 CE<sup>33</sup> at the request of Boethus, a Peripatetic and a consular, who took them (as well as the first book of *On the Use of Parts*) with him to Syria Palestina, where he was to be governor.<sup>34</sup> Completion of the work was delayed by Boethus' death and other obstacles encountered by Galen after his return to Pergamum in 166 CE. Three years later he was recalled to Rome to become court-physician to Marcus Aure-

<sup>29</sup> See Vegetti (1986), esp. 237 ff., R.J. Hankinson, 'Galen's Concept of Scientific Progress', *ANRW* 37.2, 1775-89.

<sup>30</sup> See *PHP* III 4.30-1; *Nat. Fac.* III 10, *SM* III p.230.23 ff. Helmreich; *QAM* 9, *SM* II p.64 Müller; *Hipp. Epid.* VI: II 27 (p.91 Wenkebach); *AA* VI 13, II p. 581 K.

<sup>31</sup> See De Lacy (1972) 27 with further references.

<sup>32</sup> Cf. V. Nutton, 'Galen and Egypt', in: Kollesch and Nickel (1993) 26 ff.

<sup>33</sup> I.e. during his so-called first residence in Rome, see *supra*, n.1.

<sup>34</sup> *Lib. Prop. SM* II pp. 94. 19 ff. 96.19 ff. Müller.

lius. When the emperor left Rome to launch a military campaign against the Germans, Galen was allowed to remain in the capital. In the interval before the emperor's return (176 CE) he found time to complete *PHP* and *UP* and to write a number of other works.<sup>35</sup>

Although Galen's initial statement of his purpose in writing *PHP* has been lost, it is clear that he intended to demonstrate that the main doctrines of Plato and Hippocrates were correct and in substantial agreement.<sup>36</sup> This is accomplished in Books I-VI. In Books VII-IX he discusses further points of agreement between Hippocrates and Plato concerning sense-perception, the elements, and the methods of inquiry.<sup>37</sup> The fact that he started with the issue of the seat of the psychic powers, notably the so-called regent part (ἡγεμονικόν), attests to its topicality in his day. In fact it features prominently in most surviving specimens of the *De anima* literature later than Aristotle.<sup>38</sup> Plato and Aristotle were the first to attach importance to the location of the mind. Their disagreement on this point may have originally stimulated interest in the question.<sup>39</sup> It grew into an exemplary case of scholastic controversy, on which each dogmatist school or philosopher was supposed to have its distinctive tenet.<sup>40</sup> As such, it came to lead a life of its own, as a set issue of dialectical disputation, like that whether the embryo is a living being (ζῶον).<sup>41</sup> Meanwhile it was directly relevant to concerns in the field of moral psychology, such as weakness of will and the nature of the emotions. Thus Galen's discussion of *PHP* I-III bears directly on his treatment of the passions in *PHP* IV-V.<sup>42</sup> The opposition between Plato and the Stoics with regard to the

<sup>35</sup> See De Lacy, *PHP*, vol. 1, 46 f. with further references.

<sup>36</sup> On the harmonization of Plato and Hippocrates see VI 8.76, IX 1.1 = Book I, Test. I a, b (p.64.6-14 De Lacy); the theme of the accuracy of their doctrines is made explicit at V 6.40-41, which should be added to the testimonies for book I printed by De Lacy; cf. also 48.

<sup>37</sup> That Galen's initial plan was to deal with all points of agreement between Hippocrates and Plato would appear from the first two testimonies of the lost beginning of Book I: see *PHP* p.64.6-14. Cf. De Lacy, *ibid.*, 48 f.

<sup>38</sup> The issue is lacking from Aristotle's *De anima*. But in his biological works Aristotle argues in favour of the heart: see e.g. *PA* Γ 4; *De iuv.* 3-4; cf. Mansfeld (1990b) 3212 ff., who also points to two passages from Aristotle which prove that he knows of the debate, viz. *Met.* Δ 1.1013a4 ff., Z 10.1035b25 ff.

<sup>39</sup> See Mansfeld (1990b) 3212 ff. esp. 3215.

<sup>40</sup> Cf. Sextus, *M.* 7.313 for the question as a stock example of dogmatist disagreement used by Sceptics. For the doxographic tradition as evidence for the debate see Mansfeld (1990b).

<sup>41</sup> On this debate see Tieleman (1991).

<sup>42</sup> He originally also intended to discuss the virtues as related to the

location of the mind corresponds to important points of difference in the sphere of moral psychology. Plato's trilocution of the soul involves a basic distinction between rational and non-rational capacities ('parts') of the soul. Passions, as non-rational phenomena, are essentially different from reason; when a particular passion occurs, one of the non-rational parts of the soul prevails over reason. Weakness of will is supposed to show that there are such distinct forces in the soul which may be opposed to one another at the same time.<sup>42a</sup> Plato's account was taken up by the Stoic Posidonius (c.135–c.50 BCE), whose *On the passions*<sup>42b</sup> Galen cites with approval in *PHP* IV-V.<sup>43</sup> The relevant Posidonian fragments show that he too posited irreducible non-rational powers in the soul, which, while being impervious to reason, can be influenced by other means with a view to moral improvement. Galen makes much of the fact that Posidonius thereby deviated from the view propounded by Chrysippus and the majority of Stoics. Their conception of the soul is unitarian: adult humans are characterized by the possession of one homogeneously rational mind, located in the heart. Passions are excessive impulses of this mind, which nonetheless retains its rational character. In fact, passions are identified with mistaken judgements about the value of things. They are irrational in the sense that they contravene the rulings of 'right reason', i.e. rationality in a normative sense.<sup>44</sup> As a result, weakness of will,

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different parts of the soul after *PHP* I-III, see III 1.6.

<sup>42a</sup> On weakness of will (ἀκραιψία) see now Price (1995).

<sup>42b</sup> 'Passion' is my translation of the word πάθος. In Stoic psychology it is a technical term whose meaning is determined by the theory in which it functions. No single rendering is wholly adequate. 'Passion' has at least the advantage of conveying that the Stoics treated παθή as wrong by definition—an aspect which is much less clear from alternative translations such as 'emotion'. In the case of *PHP*, matters are further complicated by the fact that the Stoic treatment of non-rational phenomena like desire and anger differs from that in the Platonic-Peripatetic tradition, where they also function as part of the natural make-up of the human mind. On the problem of translating πάθος see further Inwood (1985) 127.

<sup>43</sup> Fragments assembled by Edelstein and Kidd, Frs. 30-5; 150-87. On Posidonius' psychology see esp. I.G. Kidd, 'Posidonius on Emotions', in Long (1971a) 200-15.

<sup>44</sup> The secondary literature on the Stoic theory of the passions is vast. Competent accounts are offered e.g. by Inwood (1985) 127-181; Long-Sedley (1986) vol. 1, 410-22; cf. also, with special reference to the controversy concerning the location of the psychic powers Mansfeld (1992) 119 ff. More popularizing accounts are to be found in M.C. Nussbaum, *The Therapy of Desire. Theory and Practice in Hellenistic Ethics* (Princeton 1994) 359-401 and J. E. Annas, *The Morality of Happiness* (Oxford 1993) 409 ff.

moral responsibility, the therapy of the weak or diseased soul and related matters are conceived of in a way that differs crucially from Plato's account.

Galen identifies the regent part with Plato's rational part (λογιστικόν), taking perception and conation as its defining characteristics (II 3.4). If he can prove that these functions are located in the brain the Stoics and Peripatetics are beaten. Plato, too, had located the passions, or at least some of them, in the heart.<sup>45</sup> Galen never tires of arguing that those arguments of his adversaries which refer to passions such as anger in the heart merely confirm the Platonic scheme and prove nothing about the rational functions.<sup>46</sup> Having established the seat of the Platonic rational and spirited parts in books I-III, he moves on to its third, appetitive part in book VI.<sup>47</sup>

The spatial separation of three faculties along Platonic lines not only wrecks the Chrysippean idea of the unitary soul; it also entails the rejection of the division into three *powers* (δυνάμεις) of Aristotle and Posidonius.<sup>48</sup> Put differently, for Galen the assignment of these three capacities to separate bodily organs entails their determination as distinct parts (μερῇ, μορία) or forms (εἶδη) rather than powers.<sup>49</sup> Conversely, speaking in terms of different powers presupposes one bodily substrate.<sup>50</sup> There are no signs that he

<sup>45</sup> The considerations which led Galen to accept the heart as the seat of anger will be discussed in due course; see *infra*, pp. 44, 53 ff.

<sup>46</sup> Especially in Book III. The mere fact that Plato did posit separate rational and non-rational capacities in the soul imposes an obligation on the Stoics to prove otherwise; in other words they cannot take it for granted that where the passions are, there also is reason; see *infra*, p. 11 f.

<sup>47</sup> Books IV and V—on the passions and soul-division as such—are inserted due to a change of plan, see *PHP* V 1.1 ff., VI 1.1 ff.

<sup>48</sup> Galen follows the scholastic tradition in attributing to Aristotle a division between volition, anger and desire, three forms of conation corresponding to the Platonic parts; cf. Arist. *EN* H 7.1149b1-2; *Pol.* 1334b22-23; *MA* 700b22; *De an.* Γ 10.433a23-8. Galen, though, flouts the usual and important qualification that Aristotle employed this division in his ethical work only, cf. *PHP* VI 3.7. He presents Posidonius' position as identical to Aristotle's: see *PHP* V 4.3; cf. also 7.50; 7.9-10; VI 2.5 = Posid. Frs. 142, 145, 144, 146 E.-K. Cf. Porph. *ap.* Stob. *Ecl.* I p.350.19 ff. (= 253F Smith, part); Plut. *Virt. mor.* 442B. The justifiability of Galen's representation of their position—which primarily concerns book IV and V—is beyond the scope of this book. I shall pursue this question in my forthcoming *Galen and Chrysippus On the Passions*.

<sup>49</sup> *PHP* VI V 7.50, VI 2.5; *In Tim.*, pp.11.25 ff., 12.15 ff. Schroeder

<sup>50</sup> The parts vs. powers issue is attested by many authors of the Imperial period; cf. e.g. the tract entitled *The affective element in man: is it a part or a power of his soul?* (Εἰ μέρος τὸ παθητικὸν τῆς ἀνθρωποῦ ψυχῆς ἢ δύναμις), preserved in truncated form under the name of Plutarch but presumably spurious; cf. Sandbach (1969) 33 f. The best modern edition is to be found in F.H.

implies that the Aristotelian 'forms' he speaks of are identical with the form of the organs themselves—an option which he does consider in the treatise of his old age, *The habits of the mind follow the temperaments of the body*.<sup>51</sup> But it falls outside the scope of *PHP*, in part because Galen declines to discuss the subject of the soul's substance there. But when he refers to it nonetheless, it is clear that he is still inclined to assign a crucial role to the psychic pneuma, or breath.<sup>52</sup>

The refutation of the Aristotelian/Posidonian position may also have been directed against contemporary Platonists who in the face of Peripatetic criticism sought to safeguard the soul's unity and immortality—a prevalent concern at the time—by accepting the Aristotelian division into powers instead of parts in the Platonic sense.<sup>53</sup> This motivation may also lie behind *PHP* VI 2, where Galen demonstrates by means of proof-texts that Plato speaks of 'parts' and 'forms'.<sup>54</sup>

Ancient authors who wrote on the soul considered the issue of the location of the psychic powers highly important. In Galen's day, the issue was still hotly debated. Thus his younger contemporary Alexander of Aphrodisias, a true-blue Peripatetic, concludes his *On the Soul* with an extensive demonstration in support of the cardiocentric view.<sup>55</sup> But Galen's text too bristles with indications that he engaged in discussion with contemporary opponents. It is typical of the times that all sides appealed to arguments in the works of the founders of their philosophy. Likewise, interschool polemic often took the form of criticism of the writings of the founder, or most authoritative philosopher, of the school of one's

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Sandbach (1969) 60-71.

<sup>51</sup> *QAM* c.3, *SM* II pp. 37-8, 44-48 Müller.

<sup>52</sup> *PHP* III 8.32, VII 3.19-36.

<sup>53</sup> Whom he has in mind must remain uncertain, but the position at issue was held by Platonists such as Severus, a contemporary of Galen: see Euseb. *PE* XIII 17.1-6, II p.239.9 ff. Mras, with Deuse (1983) 102-8, esp. 104 ff. Dillon (1977) 262-64. Versions of it are also ascribed to Nicolaus of Damascus (c. 64 BCE-4 CE) and Porphyry's mentor Longinus (early 3rd c. CE): Porphyry ap. Stob. *Ecl.* I, p.353-354.6 W. (= Nicolaus F 7 Roeper/T 9 Lulofs) with Moraux, (1973) 481-7; *ibid.* p.351.11-19 (= Porphyry 253 F Smith); cf. 353.1-11 W.

<sup>54</sup> Cf. Gal. *In Tim.* p.10.25 ff. Schroeder

<sup>55</sup> Pp.94.7-100.17 Bruns. It is interesting to note that Alexander also adduces medical evidence in support of the Peripatetic view (p.94.7 ff.). On the relation between Alexander and Galen with respect to this issue cf. further *infra*, pp. 73 ff.

opponents, who were thus involved in the attack without being separately or explicitly refuted.<sup>56</sup> In the 2nd century Chrysippus was the recognized authority for Stoic doctrine; his treatises were still studied and used for teaching purposes in the Stoic schools.<sup>57</sup> In consequence, he is singled out by Galen for criticism, just as he had been Plutarch's privileged adversary (IV 1.3; V 6.40-42).<sup>58</sup>

Given the role played by the writings of the founding fathers of the warring schools, philosophical discussion often became predominantly exegetical. Galen records disputes he had with philosophical opponents on textual points.<sup>59</sup> But the rise of an exegetical style of doing philosophy was certainly stimulated by the work of commentators like Andronicus of Rhodes and many others.<sup>60</sup> Galen's mode of handling texts of others may also have been conditioned by his own activity as a commentator.<sup>61</sup> What we need is

<sup>56</sup> Cf. e.g. VII 1.2 ff.; II 5.22; III 1.7.

<sup>57</sup> See esp. Epictetus, *Diss.* I, iv, 28-32; cf. I, iv, 6-9 (c. 55-135 CE), xvii, 13-18; II, xvii, 40 (c. 55-135 CE), xix, 5-10; III, ii, 13-16 (c. 55-135 CE), xxi, 7; IV, ix, 6; cf. Babut (1969a) 17-18; Gould (1970) 12-14.

<sup>58</sup> Cf. D. Babut, *Plutarch et le Stoïcisme* (Paris 1969) 19 f. H. Cherniss, *Plutarch's Moralia*, vol. XIII, part I (Loeb Classical Library, Cambridge Mass./London 1976) 397 f.

<sup>59</sup> A neat example is provided by Galen's discussion in *PHP* II 5 of the celebrated argument from speech to prove that the dominating part of the soul resides in the heart. This argument had been first used by Zeno and was still appealed to by the Stoics of Galen's day (*ibid.* 7). Galen reports on his dispute with a Stoic adversary on the correct meaning of the term *χωρεῖ* in Zeno's syllogism (22). For this reason, Galen not only quotes (cf. 8) and examines Zeno's text, but also the elaborate versions of the same argument by Diogenes of Babylon and Chrysippus (cited 9-13, 15-20 respectively).

<sup>60</sup> Cf. Seneca's well-known complaint: 'quae philosophia fuit facta philologia est' (*Ep.* 108.23). On the study of philosophy by means of the exegesis of the past masters see now Mansfeld (1994), who also deals extensively with Galen (pp. 117-176).

<sup>61</sup> *PHP* antedates the major commentaries on the Hippocratic treatises, though Galen may have begun the commentary on the *Aphorisms* and had completed at least two works on Hippocrates, the *De elementis secundum Hippocratem* (*Hipp. Elem.*, I 413-508 Kühn), and the (lost) *De Hippocratis anatomia*, see De Lacy (1978) 48, 55 f., who shows that in *PHP* Galen quotes from the Hippocratic corpus with less discrimination than in his later works. Note however that at *ibid.* VIII 2.14, p.294.33 he refers at least to the published treatise *Hipp. Elem.* On Galen as a Hippocratic commentator see further P. Manuli, 'Lo stile del commento: Galeno e la tradizione ippocratica', in F. Lasserre and Ph. Mudry (eds.), *Formes de Pensée dans la collection Hippocratique* (Geneva 1983) 471-8; D. Manetti and A. Roselli, 'Galeno commentatore di Ippocrate,' *ANRW* 37.2 (1994) 1529-1635; Mansfeld (1994) 148-76; I. Sluiter, 'The embarrassment of imperfection: Galen's assessment of Hippocrates' linguistic merits', in Van der Eijk *et al.* (1995) vol. 1, 519-37. On Galen's 'commentaries' (ὑπομνήματα) on logical works of Aristotle, Theophrastus and

more detailed inquiries into his habits and procedures in this regard.<sup>62</sup> I shall take account of this aspect when dealing with the Chrysippean fragments in the second part of this book.

#### 4. *Plato, Hippocrates and Other Authorities*

Galen's admiration for Plato should be seen against the backdrop of a general resurgence of interest in the Platonic dialogues that occurred in the second century CE in Asia Minor and Syria in particular.<sup>63</sup> In his youth he attended the lectures of a Platonist ('a pupil of Gaius') in his native Pergamum before studying with another prominent Platonist, Albinus, in Smyrna.<sup>64</sup> In his *On my own books* he lists several works on Platonic philosophy (including *PHP*) as well as a collection of summaries of all dialogues.<sup>65</sup> Of these, *PHP*, his *The habits of the mind follow the temperaments of the body* (*QAM*) and the summary of the *Timaieus*<sup>66</sup> survive. Galen not only knew the dialogues intimately but also engaged in debate on exegetical issues arising from the dialogues. Indeed, it may have been these debates which directed his attention to Plato's own

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Chrysippus, see *Lib. Prop.* chs. 14-15, *SM II* p. 122. 19 ff. Müller and *infra*, p. 3 f.

At VI 8.76, Galen points to the difference between the selective procedure of *PHP* and the style of a running commentary. At VIII 2.13 he explains his procedure in the *Hipp. Elem.* (providing an exegesis of Hp. *Nat. Hom.*) in similar terms: 'It does not elucidate every word or phrase, as exegetical writers used to do; rather it comments only on the main doctrines with the proofs for them.' Cf. also V 7.34, where Galen says he will not cite a number of not strictly relevant Platonic passages, as everybody can read the original work for themselves. For his selective procedure in regard to Chrysippus, cf. III 1.3. In view of these passages I cannot accept Vegetti's characterization of *PHP* as a kind of anthology for readers who did not possess the classical texts themselves, see Vegetti (1986) 229 ff.

<sup>62</sup> A palmary example of an existing study of this kind is C. Fabricius, *Galens Exzerpte aus älteren Pharmakologen* (Berlin/New York 1972).

<sup>63</sup> See Glucker (1978) 134 ff., 342 ff. Further Ph. De Lacy, 'Plato and the Intellectual Life of the Second Century A.D.', in G.W. Bowersock (ed.), *Approaches to the Second Sophistic*. Papers presented at the 105th annual meeting of the American Philological Association (Pennsylvania 1974) 4-10; H. Dörrie and M. Baltes, *Der Platonismus in der Antike*, Band 3: Der Platonismus im 2. und 3. Jahrhundert nach Christus (Stuttgart-Bad Cannstatt 1993) 121 ff.

<sup>64</sup> *Aff. dig.* 8, p. 28 De Boer; *Lib. Prop.* 2, *SM II* p. 97 Müller; cf. De Lacy (1972) 28 f.

<sup>65</sup> *Lib. Prop.* 13, *SM II* p. 122 Müller; cf. De Lacy (1972) 30 f.

<sup>66</sup> Viz., in Arabic; it was edited along with fragments from the epitome of the *Republic* and of the *Laws* by R. Walzer (*Plato Arabus*, vol. 1); see now also the new fragments in C.J. Larrain, *Galens Kommentar zu Platons Timaios* (Stuttgart 1992).



writings in the first place. So we should be alert to the possibility that his reading of them was coloured by exegetical concerns current in his day.

The nervous system, as is well-known, had been discovered by the Alexandrian scientists Herophilus and Erasistratus in the first half of the 3rd century BCE.<sup>67</sup> Galen's undertaking, then, represents an attempt to bring the Platonic doctrine more up-to-date, to make it scientifically more respectable in the light of later, mainly Hellenistic, advances in anatomy and physiology.<sup>68</sup> This tendency can be pointed out in other sources as well. The Platonist handbook preserved under the name of Alcinous likewise associates the brain as the seat of the rational faculty with 'the beginnings of marrow and nerves' (*Did.* 17.173.5-9 H.).<sup>69</sup> This modernization of the *Timaeus* inevitably entailed anachronisms.<sup>70</sup> But it was certainly facilitated by the fact that Plato's relevant formulations are often vague on physiological or anatomical details, especially where the location of the spirited and appetitive parts is concerned. This feature is due to Plato's mode of argument. Though he drew on contemporary medical knowledge, he was not so much concerned with the physiological connection between the soul's parts and bodily organs (heart, lungs, liver, etc.), but treated the latter from the viewpoint of Man's psychic and moral life.<sup>71</sup>

With some justification, Galen could claim *broad* support from the dialogues.<sup>72</sup> But in fact Plato designates only the brain unequivocally as the seat of the rational part. He merely implies that the

<sup>67</sup> Cf. *infra*, pp. 48 ff. 191 ff.

<sup>68</sup> Galen, *In Tim.* p.15.5 ff. Schröder (= *ad Ti.* 77d6-e6) says that Plato was ignorant of the nerves, just as 'some of the physicians of old'—excepting, that is, Hippocrates, see *supra* in text. Galen, *ibid.* p.14.28 ff. says 'it is not surprising that Plato was ignorant of anatomy, just as was Homer also...'. For physiological and anatomical ideas of Plato which Galen calls flawed: see De Lacy (1972) 34 with references.

<sup>69</sup> Cf. Diller (1974) 234; Dillon (1977) 289; Mansfeld (1991) 137 n.78.

<sup>70</sup> J. Dillon, 'Tampering with the *Timaeus*: Ideological Emendations in Plato', *AJPh* 110 (1989), repr. as Study nr. V in *The Golden Chain*. Studies in the Development of Platonism and Christianity (London 1990), 50-72, 71 f. points to some alterations in the text of the *Ti.* due to Galen, or at least preserved by him, apparently designed to make physiological passages more accurate from a medical or philosophical point of view, viz. 77c4; 83b6 (cf. *PHP* VIII 5.18); 85e4; 86c4; 86d2; 86d5. These passages do not however directly concern the seat of the psychic powers.

<sup>71</sup> Cf. Cornford (1937) 282.

<sup>72</sup> *Ti.* 44d; 65e; 67b; 69d-70e; *Phae.* 96b; for the tripartition without the trilocation see also *Resp.* 434e-444d; *Phaedr.* 246a ff.

heart is the dwelling place of the spirited part. The gods place 'the part of the soul which partakes of courage and anger' in the area between the neck and the midriff, where it can conveniently receive the messages from reason and help it suppress desire when the latter becomes unruly (70a2-8). They then install in the chest (the 'guardroom') the heart, which is called 'the knot of the veins'<sup>73</sup> and fountainhead of the blood that courses violently through all the limbs.' Anger starts boiling on receiving a message from reason that some unjust act is taking place in the limbs whether from without or from the desires within, and sends by way of the heart and the veins commands and threats to every sentient part of the body (70a7-b8). Galen, who cites this passage at III 1.31, takes Plato to locate the θυμοειδές within the heart.<sup>74</sup> Understandably, he is silent on the heart's role of transmitting sensory stimuli as mentioned by Plato.<sup>75</sup>

Plato's treatment of the relation between the third part of the soul and certain bodily organs is also a bit unspecific. At *Ti.* 70d7-e5 the gods locate desire 'between the midriff and the boundary towards the navel', i.e. the stomach ('between the midriff and the navel', 77b3 f.). But in assigning the appetitive part to the liver Galen is not only more precise than the Platonic text.<sup>76</sup> In other passages (not

<sup>73</sup> This translates φλεβῶν (70b1), a term which according to Galen the ancients used for both both veins and arteries, see *infra*, n.85. Consequently, this poses no threat to Galen's view that the liver not the heart is the source of the veins.

<sup>74</sup> In line with the general interpretation, cf. Apul. *Plat.* 207; Alcín. *Did.* 23, p.176.19 H.: τὸ ... θυμικὸν ἔταξαν ἐν καρδίᾳ. But 17, p.173.13 H. τὸ ... θυμικὸν περὶ καρδίαν is closer to the Platonic text; cf. D.L. 3.67 (περὶ τῇ καρδίᾳ).

<sup>75</sup> Plato ascribes both perception and conation to the non-rational parts also, see e.g. II 69d4.

<sup>76</sup> Pace Diller (1974) 234; De Lacy (1988) 46; Lloyd (1993) 137. Cornford (1937) 288 n.1 points to *Ti.* 71d2 τὴν περὶ τὸ ἥπαρ ψυχῆς μοῖραν as supporting 'Galen's [...] assertion that Plato regards the liver as the seat of the appetitive part'. But in fact Galen does not cite this text nor, surprisingly, 70d7-e5 (or 77b3-4 for that matter) but 70e3-4, 70d7 and 70a7-b1 (*PHP* VI 8.51, 52, 70)—brief snippets of text tailored to his argumentative needs and explained without any apparent regard for their original context. In another section of Bk. VI, viz. 2.7, one of the two crucial statements, viz. 77b3 f. (see in text), is cited as proving that Plato spoke of 'forms' (εἶδη) of the soul. But it may well have been originally excerpted to support Galen's claim about the seat of desire. Likewise his explanation of most passages quoted in ch. 8 (see above) is quite tortuous, and some of them are also cited in other places of the book for different purposes. For Galen's interpretation see also *In Tim.*, p.11.24 ff. Schröder; *Comp. Timaei*, XVIIe, p.75.31 ff. Kraus-Walzer; *UP* IV 13, vol. 1, p.227.4 ff. Helmreich.

discussed by Galen) it is said that the liver is created to enable reason to project images on its smooth, reflecting surface in order to exert a wholesome influence on beast-like desire watching from nearby in the belly (71a3 ff.). At 71d ff. the liver's function is extended to include divination through dreams and visions. Although the liver has a role in conditioning desire, it does not feature in the account of digestion at *Ti.* 80d-81e.<sup>77</sup> Strictly speaking, then, the claim that Plato made the liver the seat of desire (e.g. *PHP* VI 3.1; 8.52) is inaccurate. Nonetheless, it is found elsewhere in Platonist and other literature.<sup>78</sup>

Galen's project of reconciling Plato's moral doctrine with later physiological insights faces a few formidable obstacles. His proudly advertised experiments enable him to establish that the Platonic rational part is situated in the brain, that is to say, that the brain is the centre of will and perception. But it remains a moot question how the other parts of the soul in the heart and the liver communicate with the rational part in order to influence, as they obviously do, volition.<sup>79</sup> Although my main concern will be with the argumentative framework in which the experiments play their part rather than the experiments themselves, it is clear that these problems affect the nature and force of his demonstration as a whole and so deserve some consideration in due course.

I now turn to the other great name featuring in the title of Galen's treatise: Hippocrates. Galen startlingly claims that Hippocrates and Plato were agreed on the soul's parts and their location. Hippocrates, then, had anticipated the Platonic tripartition. In *PHP* II-III Galen does not try to substantiate his claim by means of Hippocratic proof-texts, mentioning Hippocrates only occasionally and in connection with other points.<sup>80</sup> It is only in book VI that he turns to the Hippocratic writings. Although an examination of his

<sup>77</sup> Cf. Mani (1965) 35 ff.

<sup>78</sup> See Plut. *Virtimor.* 450F; *Tim. Locr.* ch.46, p.218.10-1 Thesleff-Marg; ps. Gal. *Def. Med.* XIX p.459.11 ff. K.; Ps. Heracl. *Hom. vit.* 18, p.22 Buffière. Closer to Plato's *ipsissima verba* are Chrys. *ap.* Gal. *PHP* III 1.14 (*SVF* II 885), D.L. III 67; Alcin. *Did.* 16.173.14 f. 23.176.19-22; Philo, *Migr.* 66 f. *QE* 2.100, *Spec.* 1.148; 4.92-4; Apul. *Dogm. Plat.* I 13.207; 16.214. The insight into the role of the liver in the digestive process came to dominate the scientific field soon after Plato wrote his *Timaeus*, cf. Arist. *PA* Γ 7.670a8 ff. with Mani (1965) 41 ff.

<sup>79</sup> Cf. Mansfeld (1991) 141 ff. Price (1995) 85 ff.

<sup>80</sup> Most notably, we have at II 8.34 and 39 two statements from *Alim.* 30 pertaining to the digestive tract and the tract followed by the πνεῦμα; on these passages see *infra*, p. 71.

argument here would take us beyond our present scope, some general observations on his Hippocratism may also help to put his project in books II and III in perspective.

Galen's Hippocratism has recently been reconsidered by G.E.R. Lloyd.<sup>81</sup> Some of his conclusions fit in with the picture of Galen's position we have been sketching (§ 2). According to Lloyd, Galen's admiration for Hippocrates was genuine and probably dated from an early stage in his career. Choosing Hippocrates as an ideal also offered strategic advantages since it provided him with a shield against the charge of sectarian contentiousness (φιλονεικία) he himself levelled against his contemporaries. His Hippocratism marked him out as a genuine adherent of the ancients, while leaving ample room for his own ambitions and innovations. Moreover, Hippocrates' reputation both as a theorist and as a practitioner (contrast Herophilus) made him suitable for Galen's philosophically grounded ideal of medicine (see above).

Plato in his *Phaedrus* spoke directly and approvingly of Hippocrates' method,<sup>82</sup> and Platonic admiration could be claimed for other areas of Hippocrates' work as well.<sup>83</sup> Moreover, Galen facilitates his thesis about their general agreement by arguing that Plato spoke in terms of the psychic powers, whereas Hippocrates spoke of organs (*PHP* VI 8.58).<sup>84</sup> But even so, Galen committed himself to a massive effort of interpretation and reinterpretation of the Hippocratic corpus. Yet he succeeds in producing what looks like textual support for his claim that Hippocrates had located the spirited and appetitive parts in the heart and liver respectively.<sup>85</sup> However,

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<sup>81</sup> On Galen's Hippocratism see Diller (1933), (1974); Smith (1979) 61-177; Lloyd (1993); Mansfeld (1994) 131 ff.; cf. also *supra*, n. 61.

<sup>82</sup> 269c ff. esp. 270c, referred to by Galen at *HNH*, Prooemium (twice), 1.44, pp. 4, 9, 54 Mewaldt; *MM* 1.2, X p.13-14 K. Galen identifies Hippocrates' method with Plato's diacresis, devoting *PHP* IX to their agreement on this point.

<sup>83</sup> On one occasion Galen explicitly claims that Plato took his most important doctrines from Hippocrates: *UP* I 8, vol. 1, p.11 Helmr.

<sup>84</sup> Note however that a little further on (at 8.71) Galen restricts this point to the liver: in the case of the heart Plato also spoke in physiological terms and Hippocrates also referred to the spirited power as residing there; cf. *infra*, n.94. Note that Galen again says nothing about the brain/rational part.

<sup>85</sup> Thus at VI 8.46, *Hp. Epid.* II 5.16, V 130 L. associating the throbbing of the 'vein' in the elbow with the man who is quick to anger (ὄξύθυμος) is taken as an indication that Hippocrates had, before Plato, placed the θυμοειδής in the heart (*ibid.* 42). Here he correctly explains that the earliest physicians and philosophers spoke indiscriminately of φλέβες ('veins') for both kinds of vessel, but elsewhere he ignores this point when this suits him, cf. Lloyd

Lloyd's statement that 'a variety of texts could be used to suggest ... that the brain ... is the seat of intelligence' (p.137) glosses over a difficulty. Of the two passages Lloyd refers to, *De morbo sacro* c.14 is not quoted by Galen in *PHP* or anywhere else, presumably because it unequivocally assigns not only the intellect but also the emotions to the brain (c.17; cf. 20).<sup>86</sup> Elsewhere Galen refers to *Morb. Sacr.* rarely and without ascription to Hippocrates. This is significant. In the second passage adduced by Lloyd, *In Hipp. Progn.*, p. 206.13 ff. Heeg, Galen classes *Morb. Sacr.* among the tracts of disputed authenticity in such a way as to imply that he rejects it too.<sup>87</sup> Indeed, a scholium in one of the main codices states that Galen considered the tract spurious on the grounds that it did not match Hippocrates' style and intellectual acumen.<sup>88</sup> If this is correct, the location of the psychic functions will have counted for a good deal, just as doctrinal considerations led him to brand as inauthentic other Hippocratic texts.<sup>89</sup>

Galen, then, did not use *Morb. sacr.* on the grounds of its inauthenticity. But in *PHP* book VI he does adduce proof-texts from other Hippocratic tracts with regard to the Platonic spirited and appetitive parts.<sup>90</sup> As to the rational part, he could have used *Epid.* II 4.4, V 124.9 ff. sketching the course followed by a few νεῦρα starting from the brain. Galen not only deals with this passage in his later commentary on this tract,<sup>91</sup> but in *PHP* book VI also quotes

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(1993) 137. Next, at VI 8.56, he cites *Alim.* 31, where the liver is designated as the source of the veins (φλέβες), whereas the heart is called that of the arteries (ἀρτηρίαι). The *Alim.* is presumed to date from the early Imperial or late Hellenistic period, see *infra*, p. 71 n. 20. Galen at VI 8.59-66 adduces *Epid.* II 4.1, V 120-124, offering a sketch of the anatomy of the φλέβες as starting from the liver; cf. *infra* in text; and at VI 8.73 f., *Epid.* II 4.4, V 126 L. as well as *Acut. victu* 7, II 420 L. as associating the innate heat and anger with the heart.

<sup>86</sup> As was already pointed out by Diller (1974) 234.

<sup>87</sup> Cf. H. Diller, *Zur Hippokratesauffassung Galens*, *Hermes* 68 (1933) 168.

<sup>88</sup> Marcianus Venetus 269 fol. 84 v., first column, on which see Diller (1974) 234; Mansfeld (1991) 123, who adduces some indications from other sources which suggest that Galen's was a dissident view. As for Galen's acquaintance with the *Morb. Sacr.* see the collection of quotations in H. Grense-mann, *Die Hippokratische Schrift "Über die heilige Krankheit"* (Berlin 1968) 48

<sup>89</sup> E.g. *NH* chs. 9-15, see *PHP* VI 3.27 ff. VIII 2.13; *In Hipp. De nat. hom. comm. II prooem.* p.57.12 ff. Mewaldt, with Lloyd (1993) 131 f. Galen's silence on the cardiocentric tracts *Cord.* and *Carn.* suggests that he rejected these too.

<sup>90</sup> See *supra*, n.85.

<sup>91</sup> *In Hipp. Epid.* II: *CMG* V 10.1, pp.328 ff. Pfaff. Galen here rejects the view of other commentators, notably Sabinus, that Hippocrates' observations about the νεῦρα are clear, p.329.11 ff. But at the same time he here credits

from its direct context dealing with the arteries and veins.<sup>92</sup> So why did he not seize the opportunity to cite Hippocrates' remarks about the brain and the nerves at p.124.9 ff.? He may or may not have done so in the lost part of book I, in which he first posited his thesis of the basic agreement between Hippocrates and Plato<sup>93</sup> and whose preserved part is concerned with the structure of the nervous system (book VI is primarily concerned with the liver in relation to the heart, not with the brain). But in the absence of any positive indications it is impossible to say anything with confidence.<sup>94</sup>

As far as the location of reason is concerned, then, Galen's harmonization of Plato and Hippocrates remains problematic. But it is worth noting that Galen's position can be paralleled from the so-called doxographic tradition represented, most notably, by Diels' reconstructed Aëtius, which we may label the *Placita* tradition. Here too we find Hippocrates and Plato conjoined as authorities who place the regent part (ἡγεμονικόν) in the brain.<sup>95</sup> J. Mansfeld

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Hippocrates with knowledge of at least part of the nervous system. Elsewhere he ascribes anatomy to Hippocrates and the Asclepiad family, arguing that they handed down their unadulterated knowledge orally and on the basis of direct experience, there being no need for written accounts, see AA II 1 = II 280-3 K. Many relevant passages reflect what Galen wrote in his lost *On anatomy according to Hippocrates*, on which see Smith (1979) 79.

<sup>92</sup> See *supra*, n.85.

<sup>93</sup> See the *testimonia* assembled by De Lacy, vol. 1, pp. 64 ff.

<sup>94</sup> De Lacy (1972) 37 thinks it likely that Galen explained where the tripartite doctrine is to be found in Hippocrates in the lost part of *PHP* I. He refers to *In Hipp. Epid.* III I 44 (*CMG* V 10,2,1, pp. 57-58), where Galen says he explained in *PHP* why Hippocrates did *not* mention the three parts of the soul in the discussion of a certain case. According to De Lacy, this reference corresponds to nothing in the extant text of *PHP*. Yet it would be strange if such a section in *PHP* I had left no trace in the later books. In book VI, moreover, Galen gives every appearance of turning to the Hippocratic evidence for the first time. In other words Galen first demonstrates the truth of the doctrines at issue and then shows that this was also the view of Hippocrates and Plato—a procedure which squares with his attitude to authority and the use of quotations in scientific discourse: see V 7.83 ff. and *supra*, p. xxii. The reference to *PHP* at *In Hipp. Epid.* III I 44 may be simply mistaken or imprecise. In the latter case, it may or may not echo VI 8.58 and 71 (on which see *supra* in the text), where Galen says that Hippocrates, being a doctor, *usually* spoke in terms of bodily organs rather than psychic powers. According to De Lacy, Galen made these statements 'in explanation of the paucity of pertinent passages in Hippocrates'. But the aspectual difference indicated by Galen still leaves him with the task of demonstrating that Hippocrates held an anatomical and physiological version of the tripartition. This is precisely what we find him doing in the case of the heart and the liver in VI 8.

<sup>95</sup> Theodor. *Graec. aff. cur.* 5.22; Tert. *De an.* c. 15.5; cf. ps. Gal., *Introductio sive medicus*, XIV 710.1 ff. K. with Waszink ad Tert. *De an.* 15 (pp. 220 ff.); Mansfeld (1990b) 3092 ff. On the term as used by Galen, the doxographers

has recently discussed *De locis affectis* III 5 as providing important information about Galen's knowledge of the *Placita* tradition. Here Galen lists a number of issues familiar from doxographic schemes belonging to this tradition, including the issue of the seat of the mind.<sup>96</sup> Interestingly, he also says here that the many different statements about the regent part are the subject of dialectical disputation, thereby affording a glimpse of the *Sitz im Leben* of doxographic schemes.<sup>97</sup>

Passages in *PHP*, too, demonstrate Galen's use of *Placita* material. Thus at *PHP* II 8.47 f., Galen uses lemmata known from the *Placita* tradition to play off Diogenes of Babylon against Cleanthes and Zeno with respect to the substance of the soul.<sup>98</sup> And in book IX we find more passages that warrant the same conclusion.<sup>99</sup> In our extant text of *PHP* we find no parallel to the diaeresis on the seat of the intellect from the *Placita* tradition.<sup>100</sup> But it is important to observe that Galen, *On the Use of Parts* I c.8, p.15.2 f. Helmreich<sup>101</sup> unmistakably echoes the relevant section in Aëtius' *Placita* (IV 5).

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and others see *infra*, p. 26.

<sup>96</sup> Mansfeld (1990b) 3141-43. Comparing Diels' reconstructed Aëtius, Mansfeld concludes that Galen is dependent on the same tradition but must have derived his information from a somewhat fuller source than Aëtius.

<sup>97</sup> *Loc. aff.* VIII p. 157.17-18 K. Clement of Alexandria also mentions this problem as a typical instance of a 'question at issue' (θέσις, *Strom.* VIII 14.4), cf. *infra*, p. 20 f. Cf. also the treatise entitled Δικτυακά by Dionysius of Aegae, in which fifty medical theses are both defended and refuted in a way reminiscent of the Δισσοὶ λόγοι. Only these theses have been preserved by Photius, *Bibl. cod.* 211; they are printed, with a brief introduction, in Deichgräber (1930) 335-340. The forty-ninth reads: ὅτι οὐ περὶ καρδίαν τὸ διανοητικόν, ἀλλὰ περὶ κεφάλην καὶ ὅτι ἀνάπαλιν. According to Photius, Dionysius' booklet is οὐκ ἄχρηστον δὲ πρὸς τε γυμνασίαν διαλεκτικὴν καὶ δοξῶν εἰδησιν ἐνίων ἱατρικῇ θεωρίᾳ οἰκείων. It is also noteworthy that several other theses listed, viz. nos. 36-50, are similar or identical to questions discussed by Galen in *PHP*: e.g. 41 and 42 (whether the heart or the liver is the source of the veins) correspond to VI 3-6; 36 (that not the heart sends the pneuma, but the arteries draw it in) corresponds to VI 7; 44, 48, 50 pertain to the meninx of the brain as the source of various types of vessel and should be compared with VII 3. I cannot pursue the issue of these similarities further here. At any rate caution is due, since we know nothing about the author and date of the Δικτυακά.

<sup>98</sup> See Mansfeld (1990) 3073 n.48 ff. and see further *infra*, p. 89.

<sup>99</sup> See *PHP* IX 6.21-22, 7.9-13 with Mansfeld (1992) 89-92.

<sup>100</sup> Galen presumably presented a division of relevant tenets at the outset of his discussion on the soul's powers and their location, that is to say in the part of book I now lost; see further *infra*, pp. 11 f.

<sup>101</sup> ὁ μὲν γὰρ τὴν καρδίαν, ὁ δὲ τὰς μήνιγγας, ὁ δὲ τὸν ἐγκέφαλον ἐν ἑαυτῷ φησιν ἔχειν τὸ τῆς ψυχῆς ἡγεμονοῦν. Cf. Mansfeld (1990b) 3094 n.143.

Like Hippocrates, Herophilus and Erasistratus are scarcely mentioned in *PHP* I-III, but it appears from a few references that Galen sees (or at least presents) them as supporting his case.<sup>102</sup> Similarly, in the doxographic vulgate they are grouped together with Hippocrates and Plato as propounders of the head, or brain. But their tenets are presented as more refined insofar as they specified parts of the brain: Herophilus located the regent part at the base of the brain, whereas Erasistratus opted for the outer membrane, or *dura mater*.<sup>103</sup> Galen deals with the latter view in *PHP* VII 3.6-13, arguing that Erasistratus wisely abandoned it in a later stage of his career. Neither the doxographical reports nor Galen are interested in the question whether the two Alexandrian scientists had also located the emotions in the brain.<sup>104</sup>

What I hope to have made clear is that the pattern of allegiances and silences found in *PHP* bears comparison with what is to be found in the relevant sections of the *Placita* tradition. Particularly interesting in this regard is Galen's reference to dialectical debates conducted on the basis of doxographic schemes of opposing tenets and authorities (*Loc. Aff.* III 5: VIII p.157 K.). It seems a fair assumption that debates of this sort stand in the background of *PHP* books I-III as well. This may help to explain not only Galen's treatment of individual authorities but also the resulting scheme or pattern as a whole. For if our assumption is correct, Galen is concerned with a limited set of available options, so that alternatives which would otherwise have been open to him are precluded.

Galen's advocacy of the Platonic tripartition was destined to receive its share of the pervasive influence exercised by his work on later ages. Yet, contrary to what one might expect, authors such

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<sup>102</sup> References to Herophilus with regard to the seat of the psychic functions are: I 10.2 (the 'nerves' on the heart reported by Aristotle are called 'nerve-like strands' by Herophilus; see further *infra*, p. 48 f.); for Erasistratus see *PHP* I 6.3, II 8.38 (left ventricle of the heart filled with vital—i.e. not psychic—*πνεῦμα*). The few remaining references concern other points. Galen of course expresses his disagreement with Erasistratus' views that the left ventricle is filled with *πνεῦμα* only (I 6.1 ff.) and that the heart is the source of both arteries and veins (VI 3-6).

<sup>103</sup> See Aëtius, *Plac.* IV 5.3 and 4 (= ps. Plut. *Plac. ibid.* and Theodoret, *Graec. aff. cur.* V 22); see the discussion (with further parallels) in Mansfeld (1990b) 3092 ff.

<sup>104</sup> As was suggested by Solmsen (1961a) 195-7 with reference to the Hellenistic poet Apollonius Rhodius III 761-5, as containing a hint of such a medical theory. Von Staden (1989) 247 ff. too thinks it probable that Herophilus and Erasistratus shared the view of the author of *Morb. Sacr.*



as Alexander of Aphrodisias provide positive indications that he did not carry the day, thus bearing witness to the appeal and scientific respectability of the cardiocentric theory well into the second century CE.<sup>105</sup>

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<sup>105</sup> Cf. *PHP* VII 1.1 ff. and Alexander's demonstration referred to *supra*, n. 55.



PART ONE

GALEN: DIALECTIC AND SCIENCE



## CHAPTER ONE

### INTRODUCTION

A. A. Long's essay on Ptolemy's *On the Criterion and the Regent Part* is subheaded: 'An Epistemology for the Practicing Scientist'.<sup>1</sup> The astronomer, geographer and mathematician Ptolemy (*flor.* 127-148 CE) was Galen's older contemporary, and, as Long shows, there are a number of specific similarities in epistemological outlook between the two scientists.<sup>2</sup> Galen's scientific concerns, like Ptolemy's, conditioned his attitude towards philosophical concepts and arguments to a large extent. In particular, he tended to treat scientific facts and problems as test cases for philosophical theories on knowledge and method. As we have seen, his insistence on scientific and practical profitability is one of the factors involved in his selective and harmonizing attitude vis-à-vis the philosophical schools of his day.<sup>3</sup> At *PHP* II 3.18-20, for example, he dismisses certain procedures of Stoic logic as useless, while accepting its useful parts alongside Peripatetic logic.<sup>4</sup> The argument of *PHP* I-III is among other things interesting as an attempt to make philosophical concepts work for scientific inquiry.

But in *PHP* II-III it is immediately apparent that Galen propounds a set of distinct opinions on the value of existing philosophical methodologies: 'The best accounts of scientific demonstration were written by the old philosophers, Theophrastus and Aristotle in their *Second Analytics*' (*PHP* II 2.4 = Theophrastus Fr. 114 FHS &G). Galen had studied these works, commenting extensively (in eleven books) on Aristotle's *Posterior Analytics* or *On Demonstration*

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<sup>1</sup> Long (1988).

<sup>2</sup> Long (1988) 198 ff. pointing among other things to their striving to find a secure epistemological basis in what Long calls a doctrine of 'optimum agreement'.

<sup>3</sup> See *supra*, p. xx.

<sup>4</sup> While the tone of this passage is distinctively Galenic, its harmonization of Peripatetic categorical logic and Stoic hypothetical logic is common practice by his day. Many Platonists held that Aristotelian logic was *in nuce* already contained in the Platonic dialogues: they were concerned not with Aristotelian logic but with logic as set out most completely in the relevant Aristotelian tracts; see further Whittaker (1987) 111 f.; cf. Dillon (1977) 49 ff.

(Περὶ ἀποδείξεως), as he alternatively calls it (3.12).<sup>5</sup> He may have used his notes on the *Analytics* for his own *On Demonstration*, to which Galen repeatedly refers in his introductory section.<sup>6</sup> Anyway what he calls the ‘rather unclear and brief statements made by the ancients about demonstration (περὶ ἀποδείξεως)’ which he had explained in this work (*ibid.* 3.1) probably refers to Aristotle’s *Analytics* in particular (cf. 2.4).<sup>7</sup> We need not doubt that Galen in his *On Demonstration* also discussed the views of Plato and Hippocrates, reconciling them as much as possible with those of Aristotle.

Galen’s ease in combining admiration for Plato with Peripatetic logic is familiar enough from ‘Middle Platonist’ authors. A particularly striking example is found in his *Introduction to Logic* XV 10 f., where he expressly credits Plato with the syllogistic method (*Inst. Log.* p.38.1 ff. Kalbfleisch).<sup>8</sup>

In *PHP* II Galen’s main concern is with the method of finding ‘appropriate’ (οἰκεία) premises. This topic can be traced back to a number of Aristotelian passages, notably the *Analytics*.<sup>9</sup> But by pointing at his explanation elsewhere of their unclear and concise nature Galen claims to have made a contribution *suo Marte*—one which may go beyond the mere exegesis.<sup>10</sup> But what exactly may be expected from what we know about his education and antecedents?

<sup>5</sup> Cf. *Lib. Prop.* SM II p.118.10 Müller. These commentaries were presumably collections of notes for private use; cf. *ibid.* p.117.20 ff. The term Galen uses is ὑπόμνημα (*ibid.* 117.25, 118.20), which often denotes collections of excerpts and notes made in the course of the study of books (cf. Plin. *Min. Ep.* III 5). These were not intended for publication (cf. Gal. *In Hipp. de artic. comment.* III 32 = XVIII A, p.529 K.), but out of them a publishable treatise could grow through a process of correction, expansion and elaboration (the resulting work being often called σύγγραμμα, σύνταγμα; see Gal. *ibid.*; Ammonius, *In Arist. Cat.* 4.3–13 Busse (CAG IV 4). See T. Dorandi, ‘Den Autoren über die Schulter geschaut: Arbeitsweise und Autographie bei den antiken Schriftstellern’, *ZPE* (1991) 11–33, esp. 27. On Galen’s logical treatises and commentaries see further Moraux (1984) 689 ff.

<sup>6</sup> See *supra*, p. xiv.

<sup>7</sup> Galen’s statement may indeed refer to Aristotle, and Aristotle only. Aristotle is referred to as ‘the ancients’ (τοῖς παλαιοῖς) at *PHP* II 3.12. At 3.1 the phrase ἐν τοῖς .... περὶ ἀποδείξεως ... εἰρημένους (cf. my transl. in the text) probably does not express the book-title *On Demonstration*, i.e. the alternative title for Aristotle’s *APo.*, cf. 3.12; but it could reflect it.

<sup>8</sup> That is to say, with Theophrastean and Stoic accretions, which is also typical of Middle Platonists; cf. Alcin. *Did.* 158.14 ff.; and Whittaker (1987) 111 f. On the range of Galen’s study of logic see also Barnes (1991) 54 ff.

<sup>9</sup> See *infra*, p. 13.

<sup>10</sup> On the clarification of what is unclear as an principle of exegesis in Galen, see Mansfeld (1994) 148 ff.

He may be credited with a considerable degree of familiarity with the *Organon* as well as the subsequent tradition connected with it.<sup>11</sup> He first studied Aristotle's writings under a Peripatetic referred to as 'a pupil of Aspasius' (*Aff. Dig.* 7.4, p.28.15-17 De Boer), probably the same as the Eudemus of Pergamon<sup>12</sup> with whom he hobnobbed in Rome at the time he wrote *PHP* I-VI (162-166 CE).<sup>13</sup> In fact, Galen himself indicates he is following the methodology of his Peripatetic contemporaries (*PHP* II 3.23-4; cf. VII 1.4).<sup>14</sup> There may be a polemical edge involved, namely that the Peripatetics, who propounded the cardiocentric theory, are refuted by means of their own doctrines. But the information as such need not be distrusted (cf. *PHPI* 8.9 ff.).

The evidence for Theophrastus' *Posterior Analytics* is slim and unhelpful as far as our purposes are concerned.<sup>15</sup> Accordingly, it is hard to determine the nature and extent of Theophrastean influence in those cases where Galen gives a particular twist to Aristotelian notions derived from the *Analytics* and other tracts. He mentions Theophrastus before Aristotle, but this need not be significant.<sup>16</sup>

This preliminary survey, based on indications provided by Galen himself, is hardly sufficient when it comes to setting his argument against its proper historical background. He studied the relevant Aristotelian and Theophrastean tracts himself but was—via Eudemus and others—also exposed to the Peripatetic scholastic tradition. We should, moreover, take due account of the contemporary setting. I have already remarked upon the fact that, in Galen and other authors, contemporary influences and issues are

<sup>11</sup> See also Moraux (1984) 687 ff.

<sup>12</sup> As suggested by Moraux (1984) 687.

<sup>13</sup> See *supra*, p. xiii n. 1.

<sup>14</sup> On Galen's relations with the Peripatetics of his day see further *infra*, pp. 32, 45 f., 54 n. 71, 73 ff.

<sup>15</sup> Cf. O. Regenbogen, *RE Suppl.* VII (1940) 1380 f. On the Theophrastean tract *On Affirmation and Negation* Galen wrote comments for private use, *Lib. Prop.* 11, *SM* II p.123.2-3 ff. Müller. However, the few surviving fragments are not relevant here either, cf. Fr. 68.3a FHS&G.

<sup>16</sup> In the rest of *PHP* Theophrastus plays a very minor role. A mere three times he is mentioned in conjunction with Aristotle (who now comes first) as representing a particular doctrine, V 3.17-18, VI 1.1-2, VIII 5.21-24 = Frr. 114, 334, 330, 331F FHS & G). In the case of Peripatetic doctrines Theophrastus may have been added to Aristotle very much as a matter of routine, cf. D.T. Runia, 'Aristotle and Theophrastus Conjoined in the Writings of Cicero', in: W.W. Fortenbaugh and P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos* (*RUSCH* IV, New Brunswick NJ - London 1989) 23-38.

often involved in a crucial yet implicit way.<sup>17</sup> Reference made to the classical texts of Aristotle and others can serve as a way of showing one's colours and does not allow us to discount certain influences which are not explicitly acknowledged. In addition, Galen may have made contributions of his own—first advanced in his *On Demonstration*, and now applied to the issue of the psychic functions. The overall picture of historical coordinates involved is likely to be complicated.

It seems preferable, then, to begin by charting Galen's discussion. This—to put it mildly—is not a model of neat organization. Given his repetitions and vagaries, an account that follows his discussion closely is liable to contract some of its less felicitous characteristics. On the other hand, the need to take stock of his mode of argument before drawing generalizations and historical conclusions makes a descriptive approach to some extent unavoidable. In view of these requirements and circumstances, I attempt to steer the following course.

*PHP* book II, with its explicit methodological concerns, is at the centre of my treatment. In Chapter Two I shall discuss Galen's introductory section concerned with methodological issues, book II 1-4.6. Chapter Three deals with the middle section of *PHP* II (viz. 4-7), where Galen brings the principles recommended in his introduction to bear on his examination of the heart and the brain. Chapter Four is devoted to the final section of book II (8.29-51), concerned with a group of Stoic and Peripatetic arguments relating to digestion and respiration. This section is marked by an approach which differs from that followed in the preceding ones. Throughout chapters II and III, I shall point to parallels from other sources, though my main concern is with uncovering the structure of Galen's argument. No separate chapter is devoted to book III. Although Galen here continues to avail himself of the methodology introduced in Book II, notably the fourfold classification of premises, he does not use it to structure his argument to the same extent as before. This book is predominantly polemical in the sense that it does not contribute constructive argument to Galen's own defence of the Platonic theory. He presents it as an interruption of his original plan occasioned by the challenge of 'one of the most eminent sophists' to refute *all* Chrysippus' arguments. In

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<sup>17</sup> See *supra*, pp. xxvi f.



book II, he says, he had selected those of the Stoic's arguments which had some merit—a qualification which reflects the fact that he had used them as stepping stones to further his own argument. This means that in book III he goes through Chrysippus' book again, to comment on what he had left out on earlier occasions. In practice, he sets out to demonstrate the scientific disreputability of the type of testimony provided by common notions and common language and by poetry, using the well-worn device of fabricating self-contradictions on Chrysippus' part. I have therefore decided to use information from book III, whenever this seemed apposite, in my account of the pattern that emerges from book II.

In our discussion a similar role is played by books I and VI, which belong to the same demonstration: in the first book the issue of the seat of the soul was raised and from book VI 3 onwards Galen proceeds to the third part of the soul, completing his demonstration of the Platonic tripartition. (Galen apparently considers the proof concerned with the location of the rational and spirited part to have been delivered and completed in book I-III; books IV and V constitute a long excursion on soul-division as such and are not concerned with the issue of location; cf. V 1.1-3; VI 1.1-2).

Using the account of Galen's argument in Chs. II-IV, I shall attempt to reconstruct the traditional background in Chapter V. I have already indicated more than once the importance of identifying traditional elements in Galen for bringing out the distinctive nature of his method. A general characterization of this method will be offered in a final section (Conclusion).

## CHAPTER TWO

### GALEN ON SCIENTIFIC METHOD

(*PHP* II 1-4.5.)

#### 2.1. *Types of Question*<sup>1</sup>

Due to the loss of a large part of book I, we do not possess Galen's initial statement of his purpose in writing *PHP*.<sup>2</sup> But his repetitiveness comes to the rescue. At a few points in the extant books he informs us about the doctrines of Hippocrates and Plato he has singled out for discussion first. Thus the following passage appears to repeat what he had said in the preface to Bk. I (II 1.1 = *Test.* Bk. I, p. 66.3-7 De Lacy):

Having proposed to investigate the doctrines of Hippocrates and Plato, I began with the doctrine that is first in importance, from which I showed that very nearly all particular details follow;<sup>3</sup> this is their doctrine about the powers (*δυνάμεων*) that govern us, their number, the nature of each, and the place that each occupies in the animal (*τὰ περὶ τῶν διοικοῦσων ἡμᾶς δυνάμεων ὅποσα ἰτέ εἰσι τὸν ἀριθμὸν ὅποια ἰτέ τις ἐκάστη καὶ τόπον ὅντιν ἔν τῷ ζῳῳ κατείληφεν*).

Galen's enumeration of aspects conforms to a well-established pattern which can be paralleled from doxographic compilations<sup>4</sup> as

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<sup>1</sup> On the question-types at issue here in relation to the method of the so-called general question (*θέσις*) see Mansfeld (1992) and (1990b) 3193 ff.; cf. 3125 ff., 3149 ff., 3161 f.

<sup>2</sup> On Book I see further *supra*, p. xiv n. 4.

<sup>3</sup> I.e. ethical subjects such as the passions and the virtues addressed in *PHP* IV and V.

<sup>4</sup> Cf. *Aët.* IV 2-3 (substance of the soul); 4 (its parts); 5 (location of regent part); 6 + 8-13 (various functions: sense-perception, presentation (*φαντασία*), thought, speech). This rough ordering, as part of a larger structure accommodating physical issues, appears to be fairly old. Chrysippus followed the same ordering, that is to say, he began with the soul's substance, next addressed the question of its parts and then proceeded to the location of the *ἡγεμονικόν*, see *ibid.* III 1.9-16, with Mansfeld (1990a) or (1990b) 3168 ff. Our only explicitly attested testimony pertaining to the *second* book is concerned with one of the *functions* of the regent part, viz. presentation (*φαντασία*), Diocles Magnes ap. D.L. 7.50 (*SVF* II 55). In the long passage cited at *PHP* 1.10-15 (*SVF* II 885) Chrysippus in fact draws on the *Placita* tradition, see Mansfeld (1990a); *infra*, p. 159.

well as monographs concerned with the soul (in many cases themselves depending on doxographic schemes).<sup>5</sup> Comparison with these texts shows that Galen omits the traditional preliminary issue of existence, i.e. whether there is such a thing as a soul. The reason may be seen from passages in other writings where he declares the soul's existence to be evident from the functioning of the body.<sup>6</sup> He may have made this point in the lost opening section of *PHP* as well.

It is also typically Galenic to omit from the traditional check-list the question of the soul's substance, which is one of the speculative issues from which he refrains in principle.<sup>7</sup> In the treatise of his old age *The Powers of the Mind Follow the Temperaments of the Body*, he admits to being inclined to the view that the soul is corporeal in view of the dependence of mental phenomena on bodily processes. Here he suggests that its parts are the forms (εἶδη) of the organs, form being explained as the mixture (κρᾶσις) of the qualities or corporeal elements.<sup>8</sup> In *PHP* he seems somewhere

<sup>5</sup> Cf. Cic. *Ac. pr.* II (Lucullus) 124: *tenemusne quid sit animus, ubi sit, denique sitne an ut Dicaearcho visum est, ne sit quidem ullus? si est, trisne partes habeat, ut Platoni placuit, rationis irae cupiditatis, an simplex unusque sit?* Cf. Philo, *Somn.* I 30-3; Sen. *Ep.* 121.12, quoted *infra*, p. 180; Alex. Aphr. *De an.* p.1.2-3 Bruns: ἡ μὲν πρόθεσις ἡμῖν, περὶ ψυχῆς εἰπεῖν τῆς (τοῦ) ἐν γενέσει τε καὶ φθορᾷ σώματος, τίς τέ ἐστιν αὐτῆς ἡ οὐσία καὶ τίνες αἱ δυνάμεις καὶ πόσαι, καὶ τίς αὐτῶν ἡ πρὸς ἀλλήλας διαφορά. Cf. ps. Alex. Mantissa, p.101, 1-2 Bruns: Περὶ ψυχῆς τί τε ἐστὶ καὶ τίς αὐτῆς ἡ οὐσία καὶ τίνα αὐτῇ τὰ συμβεβηκότα ... i.e. essence, substance (i.e. corporeal or not), properties (including quantity, quality, place); cf. pp. 118.5-119.20, a section headed 'Ὅτι πλείους αἱ τῆς ψυχῆς δυνάμεις καὶ οὐ μία, i.e. the same set topic of anti-Stoic polemic as addressed by Galen in *PHP* IV and V,

<sup>6</sup> Cf. *Sub. nat. fac.* (= *De propriis placitis*) IV p.760 K.: ὅτι ψυχὴν ἔχομεν ἐπίστανται πάντες ἄνθρωποι, θεώμενοι μὲν ἐναργῶς καὶ τὰ διὰ τοῦ σώματος ἐνεργούμενα ... ἐννοοῦντες δὲ καὶ τῶν ἔργων τούτων αἰτίαν τινὰ ὑπάρχειν ἐκ τινος ἀξιώματος πιστοῦ πᾶσιν ἡμῖν, καθ' ὃ μὴδὲν ἀναίτιως γίνεσθαι νοοῦμεν, ἀλλὰ διὰ τὸ μὴ γινώσκειν, ἥτις ἐστὶν ἡ αἰτία ἔργων τούτων, δύναμιν εἶναι τῶν γινομένων ἐκάστου ποιητικὴν. Similarly Atticus (a Platonist and contemporary of Galen's) *ap.* Eus. *PE* XV 9.10-11 = Fr. 7 (II.51-64) Des Places. Likewise ps. Alex., *Mantissa*, after posing the question of the essence, substance and properties of the soul, says about its existence: τὸ γε εἶναι τὴν ψυχὴν γνωριμώτατον καὶ φανερώτατον (p.101.3-4). The attitude of these authors was fairly common, it seems; cf. Sextus, *M.* VIII 155, who calls bodily motion an 'indicative sign' (τὸ ἐνδεικτικὸν σημεῖον) of soul, i.e. one which signifies directly out of its own nature that of which it is indicative. This is presumably a stock example. On indicative sign as distinct from apodeictic proof (ἀποδείξις) see further *infra* p. 64 n. 124 with text thereto.

<sup>7</sup> See *PHP* IX 9.7-9; *Hipp. Epid.* p. 271.5 ff. Wenkebach-Pfaff; *Foet. Form.* IV p. 699-702 K. *Sub. nat. fac.* (= *De propriis placitis*) IV 758, 760 (for which see previous n.), 763 K. On speculative and improfitable issues see further *supra*, p. xx.

<sup>8</sup> *QAM* 3, *SM* II pp. 37-8, 44-48 Müller.

halfway toward this position. On the one hand he links the idea of the soul's parts (or forms) with their being situated in particular bodily organs. But nowhere does he actually identify the parts of the soul with the forms of the organs.<sup>9</sup> Indeed, he associates the soul, or rather mind, with the psychic πνεῦμα, as when he connects wisdom (φρόνησις) to the πνεῦμα in the middle ventricle of the brain. But this point comes up rather incidentally in his allegoresis of a myth: the birth of Athena from Zeus' head (III 8.32).<sup>10</sup> His promise to provide a fuller physiological account (*ibid.* 29) is only partially fulfilled in book VII (3.19-36). Here he concludes from experimental observations consequent upon incisions in the ventricles that psychic πνεῦμα should be seen as neither the soul's substance nor its dwelling but rather its 'first instrument' (esp. VII 3.30). The issue of the soul's substance, then, remains undecided (esp. *ibid.* 21).

The items on the traditional check-list used by Galen in ordering his discussion recalls the Aristotelian categories. Aristotle had been the first to apply these question-types to the soul, *De an.* A 1.402 a 23 ff., πρῶτον δ' ἴσως ἀναγκαῖον διελεῖν ἐν τίνι τῶν γενῶν καὶ τί ἐστὶ (scil., ἡ ψυχὴ), λέγω δὲ πρότερον τόδε τι καὶ οὐσία, ἢ ποιόν, ἢ ποσόν, ἢ καὶ τις ἄλλη τῶν διαιρεθεισῶν κατηγοριῶν. This injunction is not, or not systematically, put into effect by Aristotle, but it is taken up in later scholastic (inclusive of the Platonist) traditions concerned with the soul.<sup>11</sup> Clearly, Galen is no exception; the questions featur-

<sup>9</sup> See esp. VI 2.5, p. 368.20-2 De L.: ὁ μὲν οὖν Πλάτων καὶ τοῖς τόποις τοῦ σώματος κεχωρίσθαι νομίζων αὐτὰ [scil. εἶδη] καὶ καὶ τοῖς οὐσίαις πάμπολυ διαλλ(λ)άττειν ἐυλόγως εἶδη τε καὶ μέρη προσαγορεύει. Cf. also the echo at *In Tim.* p. 11.25-30 Schröder: ὁ Πλάτων εἶδος ἔφη ψυχῆς εἶναι τὸ ἐπιθυμητικόν ... ὥκισθαι ... κατὰ τὸ ἦπαρ, οὐ κατὰ τὸν αὐτὸν δηλονότι τόπον, ἐν ᾧ τό τε θυμοειδὲς καὶ τὸ λογιστικόν, ὅπερ ἦν (ἄν) εὐλογον, εἰ μίᾳς οὐσίας αἱ τρεῖς ἦσαν δυνάμεις, καθάπερ φασὶν οἱ τὴν καρδίαν ὑποθέμενοι τοιαύτην [i.e. Aristotle and Posidonius; see *supra*, p. xxv εἶναι. Cf. *ibid.* p. 12.15-18. In *PHP* see further V 7.50, VI 2.5; in addition, we must note that Galen opposes not only εἶδος but also ἀρχή to δυνάμεις; see e.g. *In Tim.* p.12.15 ff. Schroeder; and *PHP* VI 1.1 f.

<sup>10</sup> This is meant to counter the allegorical reading of this myth as offered by Chrysippus in support of the cardiocentric position (quoted 8.3-19 = *SVF* II 908). In the context Galen rejects allegoresis as needless and undemonstrative, but he cannot refrain from proposing an alternative interpretation, 'if one wishes to make the myth square with the truth' (*ibid.* 32); see further *infra*, p. 222 ff.

<sup>11</sup> On the use of the division according to the (primary) Categories in Middle Platonist and Peripatetic literature see further Mansfeld (1990b) 3078 ff. Porphyry in his tract on the parts and functions of the soul distinguishes between τί (i.e. essence), ποιόν and ποσόν in a somewhat different context, Stob. *Ecl.phys.* I p.353.2, 353.13, 14 W. (= Porph. F 253 Sm.). Likewise ps. Alex.

ing on his check-list are the ποσόν, ποιόν and ποῦ. Books IV and V, concerned with the soul's tripartition, answer to the the first two questions, whilst the 'where?' and 'what is it?' are at issue in books I-III and VI.

## 2.2. *Distinguishing the options*

From the opening pages of book II it becomes immediately apparent who Galen's main adversaries are: the Stoics and Peripatetics, with Chrysippus and Aristotle as their prime authorities (e.g. 2.3, 3.23). But Galen presents no formal scheme of tenets that are at issue. For this we have to turn again to a testimony for the lost beginning of book I, viz. VI 1.1-2 (*Test. libri primi* II, p. 64.16-25 De Lacy):

It was my purpose at the beginning to inquire about the powers (δυνάμεις) that govern us, whether they all have the heart as their only source (ἀρχή), as Aristotle<sup>12</sup> and Theophrastus<sup>13</sup> supposed, or whether it is better to posit three sources for them, as Hippocrates and Plato believed. But since Chrysippus disputed with the ancients not only about the sources but also about the powers themselves and did not admit the existence of either the spirited or the appetitive [power], I decided that I must first examine his view and then return to my original plan, which was to show that the brain, the heart and the liver are the source of the powers that govern us.

Galen here justifies his separate discussion of Chrysippus in books IV and V, for which, strictly speaking, there was no need. In books I-III, both Aristotle and Chrysippus had already been adequately refuted. Still, it is important for Galen to deal separately with Chrysippus' unitarian conception—which according to Galen's scheme and terminology means only one power (δυνάμις), viz. the rational one.<sup>14</sup> Chrysippus is criticized for inferring the seat of the regent part from that of certain passions like anger; he thereby posits an 'unproven assumption', that is to say he takes the monistic view for granted.<sup>15</sup> At *PHP* IV 1.14-17 he turns this into a criticism of the Stoic's 'division of the problem' (ἐν τῇ διαιρέσει τοῦ προβλήματος),

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*Mantissa* starts from τῆς τοῦ ὄντος εἰς τὰ πρῶτα γένη διαιρέσεως, p.101.13; cf. *infra*, p. 28 f.

<sup>12</sup> On the trichotomous division of psychic powers ascribed by Galen to Aristotle, see *supra*, p. xxv n. 48.

<sup>13</sup> Fr. 330 FHS & G. On Theophrastus' presence in *PHP*, see *supra*, p. 5.

<sup>14</sup> Cf. VI 2.5.

<sup>15</sup> See *supra*, p. xxv and *infra*, pp. 54, 68 f., 139 n. 17, 157, 263.

which in his view is incomplete.<sup>16</sup> Chrysippus omits to include the Platonic tripartition and thus fails to acknowledge a problem he has to solve. In its context, this objection pertains to the *On the passions*. But Galen adopts the same attitude with regard to the *On the soul*, where Chrysippus begins his discussion with an impeccable diaeresis including Plato's view (III 1.10-15 = SVF II 885),<sup>17</sup> but subsequently omits to address this (*ibid.* 16 ff. esp. 20).

As we have seen, Galen, for his part, gives Chrysippus separate tenets in the division at the beginning of his work. Accordingly, he devotes two separate books, viz. IV and V, to the refutation of Chrysippus.<sup>18</sup> But it should be noted that this division does not accommodate the view of those who assign both reason and the emotions to the brain.<sup>19</sup> (Ironically enough, Chrysippus does refer to this view, III 1.12). It is not among the available options in his discussion. Further, we should note the schematization exhibited by his division of tenets: the view given to Aristotle (and Theophrastus) is neatly intermediate between the other two: like Plato, they distinguish three separate powers; like Chrysippus they locate them in the heart. Such intermediate or compromise positions are frequent in the divisions found in the doxographic tradition.<sup>20</sup>

### 2.3. *Four kinds of premises*

When men argue inadequately about any problem, they use premises (λήμματα) which are either patently false (ἄντικρυς ψευδῆ) or inappropriate (οὐκ οἰκεῖα) to the question under investigation (II 2.1-3). This distinction serves to characterize the contents of books I and II respectively. In the former, Galen says, he has dealt

<sup>16</sup> On this passage see also Mansfeld (1992) 88 f.

<sup>17</sup> On which see *infra*, pp. 155 ff.

<sup>18</sup> See V 1.1 where Chrysippus' argument from the passions (the 'unproven assumption') is given as Galen's main reason to insert the discussion of books IV and V.

<sup>19</sup> On their identity see *supra*, pp. xxxiii ff., xxvi; *infra*, pp. 223 ff.

<sup>20</sup> Chrysippus' diaeresis ap. Gal. III 1.10-15 provides another example: here it is the Platonic trilocation which is presented as some sort of compromise between the camps propounding the head and the chest respectively (though of course Plato adds a third organ). Note also that Chrysippus also distinguishes between different parts of the head and chest. On this fragment and its relation to the *Placita*-tradition (cf. Aët. IV 5) see Mansfeld (1990a) and *infra*, pp. 154 ff.

with such false premises as that animals do not exhibit passions, as the Stoics affirm, or that nerves grow from the heart, as Aristotle had claimed (cf. *PHP* I 8). These assumptions are false because they run counter to evident observable phenomena (cf. 1.1; τοῖς ἐναργῶς φαινομένοις).<sup>21</sup> Now the second book is devoted to exposing inappropriate premises, or arguments, as such (1.2). A little further on, he formulates this in a positive way: what premises ought one seek as relevant (προσέκοντα) and appropriate (οἰκεία) to a problem at hand (3.1)? Here he also refers to the ‘unclear and brief’ statements made by the ancients (i.e. primarily Aristotle)<sup>22</sup> about demonstration and his own clear and full explanation of those statements (i.e. presumably in his lost *On demonstration*).

The label ‘appropriate’ (οἰκείον), as applied to the principles of demonstration, is used by Aristotle at *APo.* A 2.71b20-3,<sup>23</sup> but other passages in the same work also fit Galen’s remarks at 3.1-2 insofar as they link the notion of appropriateness with essence and definition. At any rate, Galen’s reference to his elaboration of Aristotle’s relevant statements should prompt us to be alert to possible innovations of his own as well as influences from the exegetical tradition concerned with the *Organon*.

<sup>21</sup> In itself this expression may cover both empirical observations and conceptual analysis, see *infra*, pp. 21 ff.

<sup>22</sup> See *supra* p. 4, esp. n. 7.

<sup>23</sup> ἀνάγκη καὶ τὴν ἀποδεικτικὴν ἐπιστήμην ἐξ ἀληθῶν τ’ εἶναι καὶ πρώτων καὶ ἀμέσων καὶ γνωριμωτέρων καὶ προτέρων καὶ αἰτίων τοῦ συμπεράσματος· οὕτω γὰρ ἔσονται καὶ αἱ ἀρχαὶ οἰκείαι τοῦ δεικνυμένου. Von Müller (1897) 450 suggests that Galen’s words ‘rather unclear and brief’ (3.1) refer to this sentence in particular; but cf. also *APo.* A 72a5 f. 74b24-6, where primary and appropriate principles are contrasted with propositions which are true but not appropriate, and 77a36-40. De Lacy *ad* 108.17 argues that Galen’s words refer to passages such as *PHP* IX 6.13, 23, where he discusses an instance of lack of clarity in Hippocrates; but this is less likely; cf. II 2.4. See passages such as *GC* 316a5-14, where Aristotle recommends experience and acquaintance with the facts (ὑπάρχοντα) as useful principles; thus Democritus employed οἰκείους καὶ φυσικοὺς λόγους (316a13-14; cf. *APr.* A 46a30, esp. 17 f. quoted *infra*, p. 108). Aristotle insists on appropriate principles (οἰκείαι ἀρχαί) as opposed to too general (‘logical’) arguments. See especially *GA* 747b27-30, 748a7 ff. where he distinguishes inappropriateness from falsehood (cf. Galen at II 2.2-3) and designates the ὑπάρχοντα as the starting-points for the inquiry into causes. See further J.M. LeBlond, *Logique et méthode chez Aristote* (Paris 1939) 239 ff. L. Bourgey, *Observation et expérience chez Aristote* (Paris 1955) 37-55, 78-83; T. Irwin, *Aristotle’s First Principles* (Oxford 1988) 30 ff. Galen must have been particularly receptive to the relevant statements in Aristotle’s biological works, which he knew quite well, see Moraux (1984) 729 ff.

Galen presents the appropriate or demonstrative (ἀποδεικτικά) or scientific (ἐπιστημονικά) premises as one class out of four, which he introduces as follows (*PHP* II 3.8-9 = *SVF* II 234):

A scientific premise of a demonstration differs from one that is rhetorical, useful for training, or sophistical. But even with regard to these later [premises] philosophers such as Zeno and Chrysippus taught us no method and gave us no training. For this reason the premises are all jumbled together, one after another, in their books. Often, as change might have it, a rhetorical argument (ἐπιχείρημα) leads the way, next comes one that is useful for training and dialectical; then a scientific one, and after that a sophistical one ... (transl. De Lacy, modified)

This criticism of the Stoics as unmethodical is traditional (cf. also 3.20 ff.).<sup>24</sup> In the present context Galen goes on to explain the differences between the premises as follows (*ibid.* 10-11):

They [scil. the Stoics] do not know that the scientific premises refer back to the essence (οὐσία) of the subject under investigation and have it as their aim (σκοπόν). All others are external (ἔξωθεν). Some are used by the dialectician for practice, for refuting sophists, for testing a young man's pregnancy, playing the midwife, leading him to some discovery, and raising questions in his mind (ἀπορῆσαι ... ποιῆσαι); all of these, if you wish, you may call dialectical, gymnastic and topical, for I am not concerned about the names, but try to distinguish them from scientific premises. Others are even more remote (ἑξωτέρω) than these and are constructed mainly from generally accepted (ἐνδόξων) and everyday examples, and from certain inductions (ἐπαγωγών) of the same sort of witnesses. These you may call, if you wish, convincing (πιθανά) and rhetorical .... Sophistical premises depart still further from the essence of the subject under investigation (transl. De Lacy, modified).

At II 4.3-4 we receive further information:

Since our task is to inquire about the heart, whether the commanding part of the soul is in it, that is to say, whether it is the source of (κατάρχει) perception and voluntary movement in all parts of the animal, you must know that the premises taken from its attributes (τῶν ὑπάρχοντων αὐτῇ) will be of two kinds: those which pertain to the subject of inquiry as such (κατ' αὐτὸ τὸ προκείμενον) will be scientific; all the rest will belong to another class, the second, at one remove from (παρὰκειμένου) the scientific premises. And all premises taken from men's opinions (δοξῶν), whether those of non-experts or poets or philosophers, or from some etymology ... will belong to the third class. These premises are twice removed from

<sup>24</sup> Cf. Cic. *Top.* 6; *Fin.* 4.10; *De or.* II 38; 157-9 (*FDS* 75-7); and *infra*, p. 114.



the scientific and differ little from sophistical premises, which consist for the most part of certain homonyms and forms of expression (trans. De Lacy's, slightly modified).

Galen's classification is clearly Aristotelian in inspiration, though it cannot be paralleled from any particular passage in Aristotle's works.<sup>25</sup> Galen refers to four Aristotelian treatises as concerned with each of the kinds of premises respectively: the *Posterior Analytics*, the *Topics*, the *Rhetoric* and the *Sophistical Refutations* (II 3.12-13).<sup>26</sup>

Scientific and dialectical premises have in common that they are derived from actual attributes (ὕπαρχοντα). Scientific, or appropriate, premises pertain to the subject under investigation 'itself', i.e. its essence (οὐσία).<sup>27</sup> At III 8.35 he interrupts his discussion to

<sup>25</sup> But certain passages may have stimulated the fourfold classification found in Galen and other authors (see below). At *SE* 2.165a39 ff. four kinds of arguments are distinguished: (1) didactic or demonstrative class of arguments said to derive from the principles appropriate (οἰκεῖα) to each branch of learning; (2) the dialectic class characterized by reference to accepted opinions, i.e. the ἔνδοξα; (3) arguments suitable for testing (πειραστικοί), which are closely related to the dialectical ones (cf. *Top.* 159a29 ff.); (4) 'contentious' arguments (ἐριστικοί), which are based on opinions which appear to be, but are not really, accepted (τῶν φαινομένων ἐνδόξων μὴ ὄντων); cf. Galen's sophistic class and the need to secure agreement on the meaning of terms first; see pp. 24 f., 104. Aristotle goes on to designate the first, demonstrative kind of arguments as the subject-matter of the *APo.* The dialectical and 'peirastic' kinds are said to be dealt with 'elsewhere', which must refer to the *Topics*. He announces that he will discuss the contentious arguments next in the *SE*. Cf. also the similar classification at *Top.* A 1.100a25 ff. where demonstrative, dialectical, peirastic and false arguments are distinguished. There are a few affinities with Galen's scheme, in particular where the demonstrative and sophistic premises are concerned. But it is clear that there are also fundamental differences (see further in text). L.T. Percy, 'Medicine and Rhetoric', *ANRW* II 37.1 (1993) 454 f. goes therefore too far in saying that 'the classification as well as the assignment of the four kinds of argument to the various treatises had been recognized by Aristotle'. On the same page, however, Percy speaks of 'an expansion of a passing remark by Aristotle' and so does seem to acknowledge certain differences. But he glosses over the problem of Galen's assignment of the ἔνδοξα to his rhetorical class, which, he asserts, is based on the opinions of non-experts only—a statement which is directly contradicted by passages such as *PHP* II 4.3 quoted in the text. Percy fails to take account of the scholastic background. His suggestion in an earlier contribution that 'Galen division of inquiry ... represents an expansion of the Stoic division of logic' is likewise ill-founded ('Galen and Stoic Rhetoric', *GRBS* 24 [1983] 263-66). It is accepted by K. Hülser, 'Galen und die Logik', *ANRW* II 36.5 (1992) 3528.

<sup>26</sup> On the *Prior Analytics*, cf. *infra*, pp. 106 ff.

<sup>27</sup> II 3.3; 4.3; 8.2; III 1.4; VI 4.3; cf. Arist. *APo.* A 4.75a35: καθ' αὐτὰ δ' ὅσα ὑπάρχει τε ἐν τῷ τί ἐστιν.

present four different *sources* of appropriate premises: (1) simple perception (αἰσθήσεως ἀπλῆς, cf. II 5.76); (2) everyday experience (ἐμπειρίας ... τῆς κατὰ τὸν βίον); (3) technical experience (ἐμπειρίας τῆς κατὰ τὰς τέχνας); (4) what is evident to the mind (τῶν πρὸς νόησιν ἐναργῶν). Obviously, in the present inquiry the scope of simple sense-perception and everyday experience is rather limited. Technical experience, i.e. anatomical observation and experiment, is needed to *make* things obvious.

Unlike scientific premises, dialectical ones do not pertain directly to the essence of the subject under investigation. Like the other types they are labelled 'inappropriate', 'external', 'superfluous and irrelevant' (II 2.3, 3.8, 3.10). On the other hand the dialectical class is closest to the scientific in that they pertain to actual attributes of the subject itself. This distinction may be traced back to a few Aristotelian passages where dialectic is characterized as concerned with attributes (συμβεβήκοτα) as opposed to 'being (οὐσία).<sup>28</sup> Further in keeping with the traditional Peripatetic view, Galen also assigns to dialectic positive functions like training and discovery.<sup>29</sup> However, we find no reference to the ἔνδοξα here (see below).

The class of rhetorical premises, which he also calls (merely) persuasive (πιθανόν) (3.11, 8.2), covers a broad range of testimonies including that provided by the *opinio communis* and individual authorities like poets and philosophers as well as etymological derivations (3.4). This is the realm of examples and inductions<sup>30</sup> typical of public speakers and sophists (3.11). Obviously, these stipulations disqualify large parts of Chrysippus' argument as rhetorical and falling outside the scope of book II, which is concerned with arguments based on actual attributes (II 8.51). Before dismissing Chrysippus' 'rhetorical' arguments, however, Galen presents a particularly disreputable specimen—the Stoic's notorious explanation

<sup>28</sup> See *Met.* Γ 10064b10, 22-6; K 3.1061b4-11 with Evans (1977). The whole of *Met.* 12-15, chs. B1-2 and 2 should be taken into account.

<sup>29</sup> Cf. *Top.* A 101a25 ff. But the heuristic function of dialectic can be traced back to the Platonic dialogues, cf. *Pol.* 286e1-2; 287a2-3; *Theae.* 150d7; for 'gymnastic', *PHP* IX 2.12; note also the references to spiritual pregnancy and the art of midwifery, II 3.10, quoted *supra*, p. 14.

<sup>30</sup> Induction is one of the two main dialectical procedures at *Top.* A 12.105a10-9. But Galen refers to a particular kind of induction, that belonging to the sphere of common experience, cf. Von Müller (1897) 428 and, on the relation of induction to the ἔνδοξα, Owen (1961) 86 f. On argument by example as a kind of induction *Rh.* B 20.1393a23-7.

of the word ἐγώ (II 2.7-23).<sup>31</sup> Etymology, he holds, is 'an impostor', which speaks in favour of falsehoods no less than truths (2.7). Galen subscribes to the conventional nature of language. The name has no semantic value beyond denotation. In scientific discourse one should replace it with the definition which spells out what the thing is (MM X p.39 K.). Thus in one passage (*ibid.* p. 84 K.) he points out that 'it is essential for anyone who wishes to discover the truth itself to try and rid himself completely of all the additional beliefs (προσδοξαζομένου) which arise as a result of names'.<sup>32</sup> Galen is talking about medical coinages (cancer, erysipelas, melancholia); but elsewhere he insists that what you actually call something is irrelevant as long as you do so consistently and above all unambiguously.<sup>33</sup> This demand lies behind many passages where he makes a fuss about terms.<sup>34</sup> There is no inconsistency between these passages and his conventionalist view of language.

Like etymological derivations, poetical witnesses can be produced in support of all doctrines, i.e. including conflicting ones (PHP III 2.18-19). Nonetheless, there is a proper use of poetical quotation exemplified by Plato in *Republic* IV. Lines of verse should be quoted only after something has been proved or in regard to things which 'are evident or the indication (ἐνδειξιν) of which lies close to sense-perception' (V 7.84 = Posidonius Fr. 156, Test. 87 E.-K.). Thus Plato quoted Homeric lines illustrating the difference between reason and anger which, Galen claims, is *obvious to all men*, as opposed to their location (*ibid.* 87). Here, then, we are dealing with the fourth or first source of appropriate premises distinguished at III 8.35 (see above).

Galen's scheme is clearly hierarchic. The most disreputable class, furthest removed from scientific discourse, is that of the sophistical premises. Of the six types of sophistical refutation dependent on language which are listed by Aristotle, SE 4.161b25—homonymy, ambiguity, combination, division, accent, form of expression—Galen in PHP mentions only the first two and the

<sup>31</sup> On this explanation and Galen's refutation see *infra*, pp. 206 ff.

<sup>32</sup> MM X pp. 81-5 K. should be taken into account as a whole.

<sup>33</sup> Cf. MM X p.70, 81 K.; *Diff. Puls.* VIII p.496 K.; *Nom. Med.* 10.9-12 MS. On this point see also Barnes (1991) 73 f.; Hankinson (1992).

<sup>34</sup> See e.g. PHP V 7.26-33; IV 3.6-4.34. For Galen's clarion call to follow ordinary Greek usage see e.g. *Nat. Fac.* I 1, SM III p. 101 Helmreich.

last.<sup>35</sup> All three expressions are used for one and the same instance of ambiguity found in Zeno.<sup>36</sup> As we shall see, the detection of ambiguities is important in the preliminary stage of inquiry, when agreement as to the meaning of the terms used has to be established.<sup>37</sup>

Having dwelt briefly on each of the four kinds, we should now pay attention to a salient feature of Galen's scheme. This is the fact that he presents the Aristotelian *ἔνδοξα* as rhetorical, and sharply distinguishes between rhetorical and dialectical classes. This is strikingly un-Aristotelian.<sup>38</sup> According to Aristotle, as is well known, demonstration is based on, or derived from, what is true and primary (e.g. *APo.* 74b24-6), whereas dialectic proceeds from plausible or reputable views, the *ἔνδοξα* (*Top.* A 100a27-30; *APr.* 46a9-10). Rhetoric and sophistic are often subsumed under the latter (e.g. *Rh.* A 1.1354a1-3). The *locus classicus* on the *ἔνδοξα* is no doubt *Top.* A 100b20: *ἔνδοξα δὲ τὰ δοκοῦντα πᾶσιν ἢ πλείστοις ἢ τοῖς σοφοῖς καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις καὶ ἐνδόξοις*. Galen knew this passage. In his *On the differences between pulses* he writes: *παρὰ μὲν γὰρ Ἀριστοτέλους ἔνδοξα λήμματα ἤκουσα τὰ πᾶσιν ἀνθρώποις ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς δοκοῦντα* (*Diff. Puls.* VIII p. 579 K.). And at II 3.11 (see above) he echoes it, putting philosophers and poets on a par with non-experts. Here, then, philosophical doctrines belong. Insofar as doctrines or propositions or arguments of opponents are classified as dialectical or demonstrative, this results entirely from considering them in terms of attributes rather than *ἔνδοξα*.<sup>39</sup> So although Galen is in the habit of combining constructive argument with criticism, he seems to lack a methodological basis for including the views and doctrines of others.<sup>40</sup> His assessment of the value of opinions,

<sup>35</sup> In addition to II 4.4 quoted *supra*, see II 8.2, which also gives homonymy (ὁμωνυμία) and form of expression (σχῆμα λέξεως); and III 1.4, which adds ambiguity (ἀμφιβολία).

<sup>36</sup> In connection with Zeno's use of the preposition 'from' (ἀπό) as ambiguous between 'out of' (ἐκ) and 'by' (ὑπό), see *PHP* II 5.26; cf. 5.54. In his *On fallacies* (XIV 582-598 K. Galen discusses all six kinds; cf. *Lib. Prop.* 14, *SM* II, p.123.8 f. M. and Alex. *In soph. el.* p. 22.7 ff. W. For Galen's views on language see further Hankinson (1994); cf. also Von Staden, 'Science as text, science as history: Galen on metaphor', in Van der Eijk *et al.* (1995) 499-517, esp. 514.

<sup>37</sup> See esp. II 8.37 ff., 40 ff. on which see *infra*, pp. 101 ff.

<sup>38</sup> As already noted by Von Müller (1897) 453 ff. esp. 456.

<sup>39</sup> For the reverse procedure cf. Arist. *De an.* A 2.403b24 f.

<sup>40</sup> At *Diff. Puls.* VIII p. 566 K., referred to by Von Müller (1897) 466, Galen comments on his habit of combining argument and criticism but here he

school-doctrines and the like, of course, fits in with his rejection of philosophical and medical sectarianism, with its typical appeal to authority.<sup>41</sup> But is this ranking of the ἔνδοξα original with Galen?

Let us first have a look at the Platonist and Peripatetic traditions. The closest parallel to Galen's classification is to be found in Alcinous' Platonist manual (first or second cent. CE).<sup>42</sup> In the division of philosophy at *Did.* 3.153.27-32, syllogistic divides into

the demonstrative, which is concerned with the necessary syllogism and the epicheirematic [i.e. dialectical],<sup>43</sup> which is regarded as the plausible (ἔνδοξον) syllogism; and, thirdly, the rhetorical, which is concerned with the enthymeme, which is called incomplete syllogism; and furthermore the sophisms; this study [i.e. syllogistic] is not primary for the philosopher, but indispensable.

Four kinds of premises (or rather syllogisms)<sup>44</sup> again, but Alcinous has the ἔνδοξα characterize the dialectical class in the traditional way. Compare also *Did.* 6.158.23-6:

He [scil. Plato] employs the demonstrative syllogisms in the dialogues designed for instruction,<sup>45</sup> the plausible (ἔνδοξοις) syllogisms in discussions with sophists and young men, and the eristic syllogisms in his discussions with those specifically called wranglers, such as, say, Euthydemus and Hippias.

The expression 'plausible syllogisms' here may be taken to cover both the dialectical and rhetorical classes. The corresponding classification of Platonic dialogues can be paralleled from other texts of the handbook type.<sup>46</sup> And Galen's specifications, in particular with

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gives no hint of any theoretical basis for the combination either.

<sup>41</sup> See *supra*, p. xxii.

<sup>42</sup> On its date see Whittaker (1991) vii ff. esp. xii f. Cf. *Id.* (1987) esp. 108 ff.

<sup>43</sup> At II 3.9 Galen uses the term ἐπιχειρημα for all four kinds of premises.

<sup>44</sup> Galen usually speaks of premises (λήμματα), but this is irrelevant, cf. *PHP* II 3.12.

<sup>45</sup> ὑφηγητικοῖς, i.e. designed for instruction. Both at D.L. III 49 and Albinus, *Isag.* 3, p. 148.25 ff. Hermann the same term is used for one of two main types of Platonic dialogues as opposed to that called ὁ ζητητικός [scil. χαρακτηῖρ], i.e. 'designed for inquiry', which labels the group of dialogues regarded as 'dialectical'. It applies to discussions described as gymnastic, tentative, heuristic, eristic, etc. The didactic or expository class of dialogues is said to be aimed at demonstrating the truth (ἀπόδειξιν τοῦ ἀληθοῦς). On the ancient divisions of the Platonic dialogues see now Mansfeld (1994) 74 ff.

<sup>46</sup> E.g. Albinus, *Isag.* 3.148.25 ff. Hermann; D.L. III 49; cf. Gal. *Lib. Prop.* SM II, p. 102.14 ff. Müller with Mansfeld (1994) 128. It should be recalled that Galen attended the introductory classes of Albinus at Smyrna, *ibid.* 97.10-11; cf. *supra*, p. xxviii.

regard to the dialectical class (II 3.10) are also meant to recall the dialogues.

At this point it is worth our while to take look at the relevant sections of the so-called eighth book of the *Stromata* of Clement of Alexandria (150-c.211/16 CE), concerned with demonstration (ἀπόδειξις) and invention (εὑρεσις, usually indicating the subject-matter of Aristotle's *Topics*).<sup>47</sup> The thee- or fourfold classification is not formally set out here, but it is certainly implied. An initial distinction is drawn between scientific (ἐπιστημονική) and opinion-related (δοξαστική) proof (πίστις, ἀπόδειξις, 5.2-3, p.82.14-18 St.). This is further explained, first, in terms of the results of each of the two modes (7.7-8, p. 83.33-84.8): the former produces knowledge (ἐπιστήμη) in the soul, whereas the latter effects persuasion (πείθω). Secondly, the two are distinguished in terms of their sources, viz. what is evident to sensation and thought<sup>48</sup> and the ἔνδοξα respectively. In this context Clement also refers to the requirement that premises should be appropriate (οἰκείον), but quite unlike Galen presents this as a prerequisite for syllogistic (including endoxic) reasoning *tout court*. Finally we may note that Clement also adverts to the need to remove conceptual confusion due to the 'form of expression' (σχῆμα λέξεως, 9.7, p. 85.15 ff. St.), i.e. one of the kinds of sophisms in Galen's classifications.<sup>49</sup> So three kinds of premises—the same trio as is offered by Alcinous, *Did.* 6.158.23-6 (see above)—can also be found in the account of Clement or his source.

<sup>47</sup> Two further sections deal with diaeresis and arguments against Sceptical suspension of judgement. In its present form, this 'book' presumably consists of a sequence of excerpts made from the lost concluding section of the *Strom.* See P. Nautin, 'La fin des Stromates et les Hypotypes de Clément d'Alexandrie, *Vig. Christ.* 30 (1976) 268 ff., and Mansfeld (1990b) 3184, with further references. Scholars have often stressed the Aristotelian and Stoic elements in these excerpts, but no doubt the view of dialectic found here is predominantly Platonist, see Mansfeld (1990b) 3184 f.; G. Apostolopoulou, *Die Dialektik bei Klemens von Alexandria. Ein Beitrag zur Geschichte der philosophischen Methoden*, Europäische Hochschulschriften XX.29, Frankfurt a.M. (1977) 39, 60 f., 63 ff. 99 ff. According to Mansfeld, the source or sources used by Clement belong with the traditions of the Middle Platonist scholastic literature: a manual or more than one, and possibly also the logico-epistemological section of a substantial work dealing with systematic philosophy comparable with Alcinous' *Did.* For the parallels with Alcinous see also R.E. Witt, *Albinus and the History of Middle Platonism* (Cambridge 1937) 31 ff., S.R.C. Lilla (1971) *Clement of Alexandria. A Study in Christian Platonism and Gnosticism* (Oxford 1971) 131 ff., Mansfeld (1992b) 78 ff. For parallels with Galen see further *supra*, p. xxxv n. 97; *infra*, pp. 24 f., 104 n. 154.

<sup>48</sup> Cf. *PHP* III 8.35, quoted *supra*, p. 15 f.

<sup>49</sup> See *supra*, p. 17.

A number of partial parallels can be added from the Aristotelian commentators. On various occasions, Alexander in his commentary on the *Prior Analytics* distinguishes between demonstrative, dialectical and sophistical premises.<sup>50</sup> The same three types are distinguished, with reference to the relevant Aristotelian works, by Boethius in his commentary on Cicero's *Topica*.<sup>51</sup> And we also find them in the commentaries of Ammonius and Philoponus on the *Prior Analytics*.<sup>52</sup> In each case, the dialectical class is characterized by reference to the ἔνδοξα. There seems to be little here which can be of assistance in understanding Galen's position on this particular point.

But Galen's view of the ἔνδοξα can also be considered from a different angle, viz. his use of the concept of 'phenomena' (φαινόμενα) in the light of Aristotle's relevant works. This may help us to find an answer not only to the question how far and why Galen deviated from Aristotle on this point, but also why he remains completely silent on this divergence. Elsewhere he has no compunction about improving on Aristotle and saying he does.

Instead of attributes Galen also speaks of perceptible phenomena (φαινόμενα) as opposed to mere opinions or doctrines.<sup>53</sup> The phenomena as opposed to hidden things are, or should be, the *starting-point* (ἡ ἀρχή) for the construction of arguments.<sup>54</sup> For Aristotle, as is well known, the term 'phenomena' covers not only empirical observations but also what appears to the mind.<sup>55</sup> The latter sense is

<sup>50</sup> In *APr.* pp. 7.8-9; 8.19-29; 18.22-31; 28.24-30; 331.12-24 Wallies. On Alexander and the *Prior Analytics*, see further *infra*, pp. 109 f.

<sup>51</sup> In *Cic. Top.* p. 275 f. Orelli (*ad Top.* c. 6, on which see *infra*, pp. 113 ff.); see also *De topicis differentiis* 1181B ff. PL (= I 7.1-26 Nikitas) where he presents the same fourfold distinction as Galen but also assimilates the dialectical and rhetorical arguments.

<sup>52</sup> Ammon. In *APr.* p. 2.10-29 Wallies; Philop. In *APr.* p. 2.22-31 Wallies. Rhetorical and poetical syllogisms are added by David (Elias), In *Cat.* p. 116.29-117.14 Busse, who, obviously enough, associates them with the Aristotelian *Rhetoric* and *Poetics* respectively. For Galen, it may be recalled, poetry belongs to the rhetorical class. The addition of poetical syllogisms appears to have been a Neoplatonist innovation.

<sup>53</sup> Thus at II 8.51 Galen describes the intended subject-matter of *PHP* II as 'the evidently appearing attributes of the heart' (τῶν ἐναργῶς φαινόμενων ὑπάρχειν τῇ καρδίᾳ) or 'what appears from anatomy' τὸ φαινόμενον ἐκ τῆς ἀνατομῆς, contrasting it with school-doctrines (δόγματα); cf. *infra*, p. 102.

<sup>54</sup> II 8.51. Similarly *Simp. med. temp.* XI, 28, pp. 430.14-431.2 K.; 36, pp. 444.13-445.4 K.; cf. Moraux (1984) 715. On the ὑπάρχοντα as starting-point cf. II 4.6 (p. 116.32 ἀρκτέον); see further *infra*, pp. 28 ff.

<sup>55</sup> For a full discussion in connection with Aristotle's concept of dialectic, see Owen (1961) 83 ff. The ambiguity involved was noticed by Alexander, In

associated with the dialectical concepts of ἔνδοξα and λεγόμενα. Aristotle was aware of the ambiguity involved. Thus at *De caelo* 303a22 f., he draws a distinction between perceptible phenomena (τῶν φαινόμενων κατὰ τὴν αἴσθησιν) and received views (ἔνδοξα), prescribing that *physical* principles are to be judged by phenomena in the sense defined (7.306a16 f.).<sup>56</sup> It is in the meteorological and biological works that the empirical method and the start from perceptible phenomena are more at home.<sup>57</sup>

The role of perceptible phenomena as starting-points was also stressed by the Hellenistic medical scientist Herophilus, whose methodology depends on ideas developed by Aristotle.<sup>58</sup> This much is clear from what is perhaps the best-known of Herophilus' pronouncements:<sup>59</sup> 'Let the appearances be described first even if they are not primary.'<sup>60</sup> This may be compared with statements by Aristotle to the effect that the natural scientist should first consider the φαινόμενα and only subsequently treat causes and reasons.<sup>61</sup> Moreover, Aristotele said that in science we begin from things more familiar to us (as distinguished from those more familiar *per se*).<sup>62</sup> But still closer to Herophilus' position is the view expressed by

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*Meteor.* p.33.6-9 Hayduck.

<sup>56</sup> Cf. Owen (1961) 89.

<sup>57</sup> Cf. Owen (1961) 84 f., 89, who arrives at the conclusion that 'it is a mistake to ask, in the hope of some quite general answer, what function Aristotle assigns to *phainomena*, or to *aporiai*, or to *epagôgê*; for ... the function can vary with the context and style of the inquiry.' On the role of phenomena in Aristotelian dialectic see now also Algra (1994) 155 ff. esp. 158 ff. with critical remarks about Owen's view of the distinction between phenomena as empirical observations and as conceptual analyses.

<sup>58</sup> See Von Staden (1989) 39, 115 ff.

<sup>59</sup> On which see Von Staden (1989) 117 ff. with Hankinson (1990) 213 ff.

<sup>60</sup> λεγέσθω δὲ τὰ φαινόμενα πρῶτα, καὶ εἰ μὴ πρῶτα (Fr. 50a; cf. T 50b Von St.). I here follow Von Staden's translation. Hankinson (1990) 213 f. argues for the translation 'let the appearances be described as [or: called] *primary things* even if they are not primary' (cf. Von Staden, p.134), because it seems to him to be improbably harsh for πρῶτα to have different senses within the compass of a single sentence. But the force of Herophilus' dictum may lie in the very ambiguity involved. Strictly, then, one should render πρῶτα twice as 'first'.

<sup>61</sup> PA A 1.639b3 ff. 640a14 f. with Von Staden (1989) 118 f., who adds as a note of caution that Herophilus may not be as sanguine as Aristotle about attaining knowledge of causes. If there is a difference of emphasis, it may be due to the influence of such Peripatetics as Theophrastus, see in text. On the implications of the dictum see further Hankinson (1990) 214, who points to the famous remark by Anaxagoras: ὅψις γὰρ τῶν ἀδῆλων τὰ φαινόμενα (DK 59B 21a).

<sup>62</sup> APo. A 2.71b 33 ff. Top. Z 4.141b29-34; Met. Z 3.1029b3-12. Galen echoes this view in his discussion on the liver: see *infra*, p. 56.



Theophrastus in the first book of his *Physics* (Simpl. *In phys.* p.20.17-26 Diels = Fr. 143 FHS&G). Here Aristotle's pupil and associate describes and emphasizes the role of observation in terms very similar to Herophilus' relevant statements.<sup>63</sup>

Herophilus may have developed these ideas further at the expense of the role of the δόξαι. A few further testimonies fit neatly into this picture. According to (ps.-)Galen, *On the Best Sect for Thrasybulus* 2 (I, p.109 K. = Herophilus T 54 Von St.), Herophilus drew a distinction between observable φαινόμενα, which he examined (or tested), and opinions (δόξαι) in which he did not put his trust.<sup>64</sup> The title of Herophilus' treatise *Against Common Opinions* (Πρὸς τὰς κοινὰς δόξας, Herophilus T 203; cf. 204) may attest the same attitude.<sup>65</sup>

Clearly, Herophilus anticipates Galen's position on the 'plausible opinions', while staying within a largely Aristotelian framework. So with some hesitation in view of the limitations of our evidence, I would submit that Galen's view of opinions as merely rhetorical was first inspired by Herophilus. As we shall see, other features of Galen's methodology seem also due to the influence of Herophilus.<sup>66</sup> But many other historical affiliations are involved. The schematization connected with his view of opinion as opposed to perceptible attributes or phenomena should also be seen against the exegetical tradition concerned with the Aristotelian *Topics*. This aspect will however be addressed in a separate section (below, Ch. 5.2).

#### 2.4. Analysis and Attributes

In II 3 Galen turns from criticizing Chrysippus' style of argument to explaining the correct method: how should one seek premises

<sup>63</sup> See esp. II.7-9: οὐκ οἶόν τε καταλιπεῖν τὴν αἴσθησιν, ἀλλ' ἀπὸ ταύτης ἀρχομένους πειρᾶσθαι χρὴ θεωρεῖν, ἢ τὰ φαινόμενα λαμβάνοντας καθ' αὐτὰ ἢ ἀπὸ τούτων εἴ τινας ἄρα κυριώτεραι καὶ πρότεραι τούτων ἀρχαί.

<sup>64</sup> Cf. Von Staden (1989) 119, 135. That the treatise containing this testimony cannot have been written by Galen has been argued by Von Müller, 'Über die dem Galen zugeschriebenen Abhandlung Περὶ τῆς ἀριστῆς αἰρέσεως', *Sitz. Ber. Ak. München* (1898), philos.-philol. u. hist. Cl., 1. Bd. 53-163.

<sup>65</sup> Cf. Von Staden (1989), 229 f., 395, who suggests that this title may have Aristotelian overtones (cf. *Phys.* IV Z.213a21-2). However, it can hardly be used to construe a positive relation between Herophilus' and Aristotle's method; rather the title may indicate a reaction against the use of common opinion by Aristotle and others, Stoics and physicians included.

<sup>66</sup> See *infra*, pp. 49 ff.

that are relevant (προσήκοντα) and appropriate (οἰκεῖα) to the subject under inquiry? The main point, he explains, is that one should derive these premises from its being or essence (οὐσία) and use this as one's mark or objective (σκοπός) or standard (κανών) in all particulars. In the present case, then, one should define the essence of the regent part (ἡγεμονικόν) of the soul (3.1-3). The whole procedure can be summarized as follows (3.4-7):

The regent part [of the soul], as they too would have it, is the principle of sensation and conation (τὸ κατάρχον αἰσθήσεως τε καὶ ὁρμῆς). Therefore the demonstration that the heart contains the regent part must not proceed from any other premise than that it initiates every voluntary motion (τῆς καθ' ὁρμὴν κινήσεως) in the rest of the body and every sensation is carried back to it. So where will the proof of this be found? Where else but from dissections? For if this organ dispatches the powers of sensation as well as movement to all the individual members, then it is by all means necessary that some vessel grows out from it to perform this service for them. Hence it has become apparent from the demonstrative method (ἀποδεικτικῆς μεθόδου) that it is more useful to dissect animals and observe closely which and how many kinds of structures grow out of the heart and spread to the other parts of the animal; and, these very structures being of such and such kinds and so many in number, [to observe] that this one transmits sensation and movement or both, and that one something else, and in doing so to reach the point where one grasps what powers (δυνάμεων) in the body have the heart as their source (transl. De Lacy, slightly modified).

Galen, then, first establishes to what extent there is agreement on the concept at issue:<sup>67</sup> the Stoics and Peripatetics too subscribe to his definition of its essence (4, 110.1 ὡς καὶ αὐτοὶ βούλονται).<sup>68</sup> The procedure of obtaining definitions from one's opponent to facilitate the attack on his thesis can be traced back to Aristotle (*Top.* Θ 3.158a37 ff., 158b24 ff.), but a much closer parallel to Galen's procedure is to be found in the Platonist scholastic tradition reflected by Clement, *Strom.* VIII, viz. 4.1-3 and 8.4-6, where it is explained

<sup>67</sup> Cf. the beginning of the argument concerned with the desiderative part, *PHP* VI 3.7: although the Stoics, Peripatetics and Platonists use different terms, they all entertain the same idea of the power, or part, in question; see *infra*, p. 56. Cf. the very similar passage at Clement, *Strom.* VIII 10.3-5. On the need for agreement on conceptions that serve as starting-points in the inquiry see also *MM* X p. 40 K. and further *infra*, p. 104.

<sup>68</sup> Cf. Chrysippus *ap.* Gal., III 5.31 (*SVF* II 896): ὁρῶμεν κατὰ τοῦτο τὸ μέρος καὶ συγκατατιθέμεθα τούτῳ καὶ εἰς τοῦτο συντείνει τὰ αἰσθητήρια πάντα. On this fr. and its context see further *infra*, p. 201 f.

that in order to discover premises that are appropriate (οἰκεῖα) to the subject under investigation, one should replace its name by a definition<sup>69</sup> which is not controversial (ἀμφισβητούμενον) but agreed (ὁμολογοῦμενον) by everyone.<sup>70</sup> Clement also defines proof (ἀπόδειξις) as arguing from what is agreed upon to what is contentious. Likewise Galen at *MM* X p. 32 K. writes that the rational doctor should start out

... from starting-points agreed by all people and proceed from there to the discovery of the rest. Nonetheless, most of them [scil., the rationalist doctors] fail to do this, but rather adopt disputed starting-points,<sup>71</sup> and instead of first demonstrating them and then proceeding to discover the rest according to the same method, they lay down the law instead of giving a demonstration.

It should further be noted that both Clement and Galen relate the fact that the basic concept is agreed by everyone to its being evident.<sup>72</sup> In this respect there is no difference between ἀρχαί as the starting-points of inquiry or as the axioms of demonstration.<sup>73</sup>

<sup>69</sup> On replacing the name by the definition in order to obtain starting-points which are agreed and evident to the senses and the intellect see also Gal. *MM* X pp. 39 f. K. See further below.

<sup>70</sup> Thus the Stoic definition of the sun 'as an ignited mass out of the waters of the sea' (on which see *infra*, p. 93 ff.) is rejected as less clear than the name itself and requiring an additional proof. In other words, it is nothing more than a doctrine peculiar to the Stoic school. We should compare Galen's procedure in the closing section of *PHP* II, where terms and propositions are also rejected on the grounds of their controversial or ambiguous or otherwise problematic nature. In this connection Galen speaks of arguments based on mere school-dogmas (II 8.51); see further *infra*, p. 102. Another example of the same preliminary procedure is found at 10.1 ff where Clement describes a dialectical discussion on the problem whether the embryo is an animal (ζῷον). At the outset one has to ask the proponent of the thesis that the embryo is an animal what he means by ζῷον in order to establish whether this crucial term is disputed or agreed upon by all (εἴτε ἀμφισβητούμενον ... εἴθ' ὁμολογοῦμενον ἅπασιν). Clement (or his source) prefers to define ζῷον by reference to movement and perception; hence one should inquire whether these functions are attributes (ὑπάρχει) of the embryo (9.6-8). On this discussion in relation to the theory of the *thesis* see further Mansfeld (1990b) 3186 ff.

<sup>71</sup> On this mistake cf. also *infra*, p. 104.

<sup>72</sup> This is a traditional Platonist position (but one which betrays Stoic influence). On axioms as first (i.e. self-guaranteingly true) as well as agreed by all see Alcin. *Did.* 5.157.25; agreement and obviousness are explicitly linked by Clem. *Strom.* VIII 14.1 (cf. 2.4 on the κοινὰ ἔννοια as starting-points); cf. also Philo of Larissa *ap.* Numenius *ap.* Eus. *PE* XIV 739c Mras (= Numenius Fr. 28 Des Places); Cic. *ND* III 9-11 (on behalf of the Academic spokesman Cotta); cf. *Fin.* V 55, *Ac.* II 38 with H. Tarrant, 'Agreement and the Self-Evident in Philo of Larissa, *Dionysius* 5 (1981) 66-97; cf. *id.*, *Platonism or Scepticism? The Philosophy of the Fourth Academy* (Cambridge 1985) 50 f.

<sup>73</sup> I here have to disagree with Hankinson (1994) 181 f. who, positing the

By Galen's time the term ἡγεμονικόν had long ceased to be exclusively Stoic.<sup>74</sup> He and many others use it interchangeably with the originally Platonic term λογιστικόν.<sup>75</sup> No doubt this widespread assimilation resulted from the protracted debate among the schools. But it was certainly facilitated by the fact that the early Stoics themselves referred to their ἡγεμονικόν also as 'intelligence' or 'thinking (part)' (διάνοια).<sup>76</sup> Galen takes the term ἡγεμονικόν as used by Chrysippus and other Stoics also in the narrower Platonic sense, i.e. as excluding the emotions and passions (which, on the well-known Stoic view, are a particular sort of conations [ὀρμαί], viz. excessive ones).<sup>77</sup> But as we have noticed, this is not merely a matter of exploiting the ambiguity involved. In virtue of his initial diaeresis Galen holds that the Stoics and others are obliged to establish the seat of the cognitive and emotional functions independently; that is to say, if they infer the presence of the former from that of the latter they ignore the very issue.<sup>78</sup>

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ambiguity of the word ἀρχή as used at *MM* X 39 (see text), draws a distinction between agreed starting-points on the one hand and evident (but not necessarily agreed upon) axioms on the other. The essential definition of the soul's regent part at *PHP* II 3.3 ff. is a counter-example however. According to Hankinson, the assumption that Galen claims that the actual axioms must be both evident and agreed by everyone would make him one of history's most optimistic epistemologists. But as is clear from numerous parallels, he was a dialectician deeply influenced by the scholastic traditions represented by Alcinous and Clement, who do characterize the axioms as both evident and agreed; previous n.

<sup>74</sup> Aët. *Plac.* IV 5.1 (on which lemma see *supra*, p. xxxiv) uses the term ἡγεμονικόν with respect to Plato and Hippocrates; cf. *ibid.* IV 21.1 (*SVF* II 836). For its assimilation to the originally Platonic λογιστικόν see also Alex. Aphr. *De an.* p. 98.24 f. Bruns (τὸ λογιστικὸν μόνον τῆς ψυχῆς ὃ καὶ ἰδίως ἡγεμονικὸν καλεῖται); cf. pp. 39.21-2; 99.14-5, with Mansfeld (1990b) 3109 n.222; Alcin. *Did.* 29.182.30-1 (cf. 173.10-11); D.L. VII 110. For other relevant passages see P.A. Vander Waerdt, 'Peripatetic Soul-Division, Posidonius, and Middle Platonic Moral Psychology', *GRBS* 26.4 (1985) 377 n.16; *id.*, 'The Peripatetic Interpretation of Plato's Tripartite Psychology', *GRBS* 26.3 (1985) 293 n.27.

<sup>75</sup> See esp. II 5.81, where he aligns these two terms and several others, including the Aristotelian νοῦν, in a passage which should be compared with VI 3.7, where he does the same for the Platonic 'appetitive part' and terms from other schools taken to be equivalent to Plato's term. On their varying provenance see De Lacy *ad loc.* (144.3-6); cf. also De Lacy (1988) 51. Here as elsewhere Galen insists that the names we use are not what matters as long as their reference remains constant.

<sup>76</sup> See Zeno *ap.* Gal. *PHP* II 5.8 (*SVF* I 148), quoted *infra*, p. 42; Chrysippus *ap.* Gal. *PHP* III 1.25 = II 7.8 (*SVF* II 886, 887); Stob. *Ecl.* II p. 65.1 ff. W. (*SVF* III 306); Plut. *Virt. Mor.* 441C (*SVF* I 202/III 459).

<sup>77</sup> See *SVF* III 377 ff.

<sup>78</sup> See *supra*, p. 11. Galen even goes so far as to say that the differences between the rational and emotive functions as posited by Plato are obvious to

Given this accepted definition of the governing part (which may be labelled D), it must be investigated whether the heart is the structural and functional centre of voluntary motion and perception. This is taken to entail the need for a material basis, that is to say for vessels (ἀγγεῖα) which connect the heart with all the bodily parts in order to transmit the sensory and motor stimuli.<sup>79</sup> Anatomical observation and experiment show that it is the brain which instantiates this general principle. The logical structure of this proof can be expressed in a syllogism, as it actually is at VIII 1.3-5:<sup>80</sup>

[S] Where the nerves have their principle (ἀρχή), there is the regent part.

The brain is the ἀρχή of the nerves.

The regent part is in the brain.<sup>81</sup>

Galen had offered anatomical accounts of the structure of the nervous and arterial systems provided in the preceding book (esp. I 6-7). But in the context of book II, where a fresh start is being made, the experimental proof envisaged at *PHP* II 3.3-7 is presented only after his treatment of the celebrated Stoic argument concerned with spoken language (*PHP* II 6). The precise role and status of this proof will demand our attention later; for the moment it is sufficient to note that Galen begins his actual inquiry at II 4.3 in such a way that the deductive or axiomatic proof at II 3.4-7 appears to be the result of this inquiry rather than its beginning.

At 4.3 Galen formulates the problem at issue: [P<sub>1</sub>] is the heart the seat of the regent part (as defined in [D]) ? What we have here is a dialectical problem in an Aristotelian sense, i.e. a question inviting a yes or no answer.<sup>82</sup> That he takes the heart as his point of departure is due to the fact that he is concerned with the flaws of

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all men, *PHP* V 7.87; on the physiological level, the voluntary and pulsative motions too differ in an obvious way, II 8.24-5, see *infra* p. 47.

<sup>79</sup> Cf. De Lacy (1979) 360 f.

<sup>80</sup> Cf. *ibid.* 22 (note the parallel syllogism with regard to the heart, 23); VII 1.5-7.

<sup>81</sup> In regard to Galen's line of reasoning we would rather speak of a hypothesis ('The brain is the seat of the intellect'), an auxiliary hypothesis derived from it ('The brain is the source of the nerves') and a test-implication (e.g. 'If the nerves connected to the heart are cut, paralysis and insensibility occur beneath the incisions'). It should be stressed however that Galen does not think in terms of hypotheses but of evident principles or axioms. At the same time he emphasizes the need for empirical testing to the extent that the status of the primary principles as such becomes problematical. On knowledge of principles according to Galen see esp. Barnes (1991) 76-9.

<sup>82</sup> Cf. *Top.* A 101b29 f.

Chrysippus' arguments. But soon the brain is also made part of the inquiry as an alternative option (II 5.2 ff.). So there exists an analogous problem, though this is not expressly stated:

[P<sub>2</sub>] Is the brain the seat of the regent part?

This further problem shares two terms with the conclusion of the syllogistic proof which concludes the inquiry. The intervening inquiry, then, is designed to discover the middle term linking the two terms of the problem. An analogous procedure is envisaged in the case of the heart (cf. VIII 1.23). We should note, however, that Galen does not look right away for the source of the nerves, but follows a 'reverse' procedure by successively scrutinizing a number of attributes (ὕπαρχοντα) of the heart, or to be more precise, as he says, *all* its attributes.<sup>83</sup> In view of the two terms of the problem he has formulated these are tested in the light of the following criteria: (1) relevance to the 'subject of inquiry', i.e. the governing part of the soul as defined by [D]; (2) appropriateness to the essence of the heart.

He begins by listing the main types of attributes at 4.5-6:

We must begin, then, with the attributes of the heart; and we must mention them all in turn, first by main heads and by genera, then also by parts and species. Now the heart has position, size, texture, conformation, state and motion.<sup>84</sup>

These types are distinguished through the technique of diaeresis (note the reference to the 'main heads and genera' and their subspecies).<sup>85</sup> The resulting list recalls, of course, the Aristotelian *Categories*.<sup>86</sup> 'Being' is absent precisely because the present inquiry

<sup>83</sup> Cf. *PHP* II 8.26.

<sup>84</sup> Ἀρκτέον οὖν ἀπὸ τῶν ὑπάρχοντων ἀπάντων τῇ καρδίᾳ καὶ λεκτέον ἐφεξῆς ταῦτα πάντα, πρῶτον μὲν ἐν κεφαλαίοις τε καὶ κατὰ γένος, εἴθ' οὕτως καὶ κατὰ μέρος τε καὶ κατ' εἶδος. ὑπάρχει δὴ τῇ καρδίᾳ θέσις καὶ πηλικότης καὶ πλοκή καὶ διάπλασις καὶ διάθεσις καὶ κίνησις.

<sup>85</sup> Division into 'underlying unqualified being' and its attributes (τῆς ὑποκειμένης οὐσίας ἀποίου καὶ τῶν συμβεβηκότων αὐτῇ) is among the types of diaeresis listed at IX 9.44. On this passage cf. Mansfeld (1992b) 330. I have to disagree with Mansfeld's view that οὐσία here is 'unqualified substance' in the Middle Platonist sense of 'matter' rather than Aristotelian substance. (Note that Galen most of the time uses συμβεβήκοτα, συμβαίνοντα and ὑπάρχοντα interchangeably; cf. De Lacy *ad PHP* 168.25-6 and Von Müller (1897) 453 n.65.) For Galen's use of diaeresis see Frede (1981) 288 f., Barnes (1991) 65 ff. 72 f. and n. 75, who however does not take the scholastic tradition into account (Barnes, p. 68: 'Plato was his master').

<sup>86</sup> In the later exegetical tradition the Aristotelian *Categories* were occasionally subjected to refinements and modifications; cf. *Inst. log.* ch. 13,

is aimed at discovering the heart's 'being' (i.e. essence, or specific function).<sup>87</sup> Galen attached much importance to the Aristotelian categories, 'for distinguishing (διαίρειν) the categories is the beginning of logical inquiry (λογικῆς ... θεωρίας)' (*MM* II, X p. 148 K.).<sup>88</sup> Accordingly, he wrote a commentary on the *Categories*<sup>89</sup> and shows himself to be familiar with the exegetical literature connected therewith.<sup>90</sup> Of course Galen knew passages such as *APr.* A 30.46a4-10, where Aristotle had recommended drawing up a list of attributes as part of the method of finding premises. Galen will have been familiar with this passage.<sup>91</sup> But the specific form his argument takes can be best elucidated from the critical and exegetical professional literature which developed around the *Categories* in the first century BCE and the first two centuries CE.<sup>92</sup> The bipartite division of the categories encountered here is a later interpretive

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p.31.14 ff. Kalbfleisch for Galen's addition of a category, viz. 'composition'. Already before Plotinus motion (κίνησις) was added to the categories as comprising ποιεῖν and πάσχειν, see Simpl. *In Cat.* pp. 63.6-9, 302.5-16, with Moraux (1973) 160 f. The same scheme is reflected at Gal. *Nat. Fac.* I 2, *SM* III p.105 Helmreich. Note Galen's reference here to genera and species: κίνησις counts as a genus.

<sup>87</sup> In many anatomical or physiological reports and discussions Galen employs similar lists, which vary in contents and length; e.g. at *PHP* II 4.36; IX 6.63; 8.14, 17, 20 f. *Ut. diss.* 1.1; 3.4, pp. 34, 38 Nickel; *UP* I 9, p. 19.20-1; IV 13, p.220.19-25; V 5, p. 266.5 ff. (including 'being' or substance); VI 4, p.308.22-27; VI 7, p. 316.3-8 Helmreich; *Opt. Med.* I, 54 K. (including 'being'). For another such list in a medical context cf. Celsus, *De Med.* I *prooem.* 24 (Herophilus T 63a Von St., part = Erasistratus 17a Garofalo) referred to by De Lacy *ad* 116.34-5. On Galen's relation to Herophilus and his distinction between kinds of perceptible phenomena see *infra* pp. 49 f.

<sup>88</sup> This statement mirrors the arrangement of the scholastic curriculum; cf. Hankinson (1991c) 222 f., Mansfeld (1994) 129 n. 231. Similarly *Diff. Puls.* VIII p.624.4-8 K. The use of diaeresis in this context is also typical of the later (Platonist) scholastic tradition. Note that Aristotle had accorded a much more restricted role to this method: although diaeresis is useful for discovering definitions, it is not, *pace* the Platonists, a method of proof and so in this regard is inferior to the apodeictic syllogism; see the critical discussion at *Met.* Z 12, *APr.* A 31, *APo.* B 5, with P. Pellegrin, 'Division et syllogisme chez Aristotle,' *Revue philosophique de la France et de l'étranger* 171 (1981); Mansfeld (1992b) 330 with further references.

<sup>89</sup> *Lib. Prop.* *SM* II p.117.25 ff. cf. 121.21 ff. *Inst. log.* ch. 13.11, p.31.14 ff. Kalbfleisch.

<sup>90</sup> See *Lib. Prop.* *SM* II p.118.23 ff. Müller, where Galen recommends the commentaries on this treatise by Aspasius (first part of the second century CE) and Adrastus (mid-second century CE), on whom cf. Moraux (1984) 227 ff., 315 ff.

<sup>91</sup> See *infra*, p. 108 f.

<sup>92</sup> The relevant sections in Hippolytus (*Ref.* I 20.1) and other authors which should be studied against this background have recently been examined by Mansfeld (1992b) 59 ff.

systematization inspired by Aristotle's distinction between substance, as self-subsistent and not predicated of anything else, and the other nine categories.<sup>93</sup>

As far as the application of this basic distinction to philosophical argument is concerned, we should compare Clement, *Stromata*, VIII 9-15 and Alcinous, *Didascalicus* ch. 5. The first, after introducing the distinction between the substance (or being, οὐσία) of the subject under examination and its attributes (ὑπάρχοντα), further divides the latter into activities, powers and affections: one may know one or more of the latter (e.g. the desires and other affections of the soul) but be ignorant of the substance. In such cases one asks to which substance the attributes in question belong (9.1-5). He goes on to discuss the question whether or not the embryo is an animal: here the substance in the womb is taken to be known as opposed to its attributes: which features can be said to belong to it? are these the defining characteristics of 'animal'? (9.8)<sup>93a</sup> After a rather extensive discussion of these questions, 'Clement' returns to his initial point: either the substance or the attributes are unknown; one starts from what is known. As an example of the former possibility he gives the problem in which part of the body the regent part of the soul is, i.e. the subject-matter of *PHP* II (14.4).<sup>94</sup> Without a doubt, these affinities with the argument of *PHP* II may be added to the other parallels we have already noted.

These observations by Clement can be supplemented by what is to be found in the relevant section of Alcinous' Platonist manual. At ch. 5 (156.24 ff.) we read:

Dialectic considers first the essence (οὐσία) of each thing and next its attributes (συμβεβηκότα); it scrutinizes what each thing is in itself either downwards through division (διαίρετικῶς) and definition or upwards through analysis (ἀναλυτικῶς); [it examines] the attributes and features (τὰ ... συμβεβηκότα καὶ ὑπάρχοντα) of the essences (or substances, οὐσίαις) either from the individuals through induction

<sup>93</sup> Cf. Hippolytus, *Ref.* I 20.1.24.2-4 W. = 81.2-4 M.: τὰ μὲν στοιχεῖα τῶν πάντων ὑποθέμενος, τὰ οὐσίαν καὶ συμβεβηκός· τὴν μὲν οὐσίαν μίαν τὴν πᾶσιν ὑποκειμένην, τὰ δὲ συμβεβηκότα ἑννέα. Cf. Stob. *Ecl.* II p.42.1-4 W., ps.Gal. *Hist. philos.* 6 (*DG* 603.9-11). This systematization can be plausibly traced back to the paraphrase of the Aristotelian *Categories* by Andronicus of Rhodes (1st cent. BCE); see Moraux (1973) 103, 107 ff., Mansfeld (1992b) 59 with further references.

<sup>93a</sup> Closely similar is Gal. *Nat. Fac.* I 1, *SM* III p. 101 Helmreich.

<sup>94</sup> Incidentally, we may note that the other two standard issues mentioned by Clement are also tackled in *PHP*: the number of psychic faculties (15.1) is at issue in books IV and V, whereas the status of the embryo was presumably addressed in the lost part of book I, see *infra*, p. 45 n. 31.



or from the universals through the syllogism. Accordingly, dialectic encompasses parts concerned with division, definition, analysis, and moreover induction and syllogistic.

Here, then, the same basic distinction into essence/substance on the one hand and its attributes on the other is used to explain the parts of dialectic.<sup>95</sup> We should especially note analysis as an 'upwards' procedure towards being as opposed to diaeresis and definition, which descend from being.<sup>96</sup> I have suggested that a similar dual scheme underlies Galen's procedure: the start from perceptible attributes in search of essence (II 4.5 ff.) and the reverse route once essence has been found (II 3.3-7). So it would seem that Galen engages here in analysis<sup>97</sup> in the sense indicated by Alcinous. It might be remarked that the treatment of attributes as universals and in terms of syllogistic (see § 3) also fits Galen's upwards procedure, but in Alcinous' concise account this is not included in the method of analysis. Yet where the affinities are unmistakable no serious discrepancy need be involved. We may note that among the three different types of analysis subsequently distinguished by Alcinous (157.11 ff.), the second one is defined as the path upwards from what is demonstrated towards propositions which cannot be demonstrated and *have no middle term*.<sup>98</sup> This is further specified (ll. 20 ff.) as an ascent from the object under inquiry towards the first and agreed<sup>99</sup> principle. From this one then returns to the object under inquiry in the synthetical manner (συνθετικῶ τρόπῳ).<sup>100</sup>

Some further evidence seems relevant here. In later accounts logic is presented as having essentially two parts, one concerned

<sup>95</sup> Cf. Mansfeld (1992b) 61, 63 n. 15 with further references; 78 ff.

<sup>96</sup> Cf. also Sen. *Ep.* 58.8: *nunc autem primum illud genus quaerimus ex quo ceterae species suspensae sunt, a quo nascitur omnis divisio, quo univevrsa comprehensa sunt. Invenietur autem si coeprimus singula retro legere; sic enim perducemur ad primum.* Note *retro legere* for analysis here. On *Ep.* 58 see further P. L. Donini, 'L'elettismo impossibile: Seneca e il Platonismo medio', in P.L. Donini & G.F. Gianotti, *Modelli filosofici e letterari: Lucrezio Orazio Seneca* (Bologna 1979) 149-330; Mansfeld (1992b) 85 ff.

<sup>97</sup> As suggested by Barnes (1991) 67, with n. 54.

<sup>98</sup> ἀναποδείκτους καὶ ἀμέσους προτάσεις. For the expression cf. Arist. *APr* 68b3, *APo.* 72b19.

<sup>99</sup> See *supra*, pp. 24 f.

<sup>100</sup> This account of analysis and synthesis runs parallel to Clement, *Strom.* VIII 8.1, who also refers to the middle terms one goes through until one reaches the evident principle. He speaks however of demonstration (ἀπόδειξις) instead of synthesis.

with invention and the other concerned with the evaluation of what has been invented.<sup>101</sup> This distinction is made by Cicero, *Top.* 6,<sup>102</sup> who ascribes a special interest in the method of invention to the Peripatetics. And we find traces of such an interest also in Alexander's commentary on the *Prior Analytics* (p.1.7 ff.) and in the account of Aristotle's doctrine in Diog. Laert. (V 28-9).<sup>103</sup>

A clear example of these twin procedures is supposed to be provided by geometrical 'analysis' and 'synthesis'.<sup>104</sup> Indeed Galen, too, in distinguishing between the means of finding and judging the truth, often speaks of the analytical and synthetical methods. Moreover, he likes to point to geometry as the paradigm of the demonstrative method (inclusive of analysis). But his recommendations of geometrical method should not lead us into assuming a profound dependence on geometry as opposed to philosophical methodology.<sup>105</sup> In fact, Galen on occasion credits philosophers (primarily Peripatetics, it seems) with an interest in geometrical proofs.<sup>106</sup> On the other hand, mathematics functions as a model for science only insofar as it (1) takes its starting-points from what is evident or securely established; and (2) provides a formally consistent theory. Galen praises the Stoic Posidonius, 'a man reared in

<sup>101</sup> For the following cf. Frede (1981) 75.

<sup>102</sup> For more similarities between this text and *PHP* II 3-4 see *infra*, p. 113 ff.

<sup>103</sup> On this trend see the preliminary observations of Frede (1985) xxxiii f. See further Cic. *De orat.* II 157-9; *Fin.* IV 10; Boethius, *In Cic. Top.* 1045A; Albinus, *Isag.* p. 156 Hermann; Plot. *Enn* I 3.4.12 ff. Procl. *In Tim.* I 276.10 ff. Diehl.

<sup>104</sup> See R. Robinson, 'Analysis in Greek Geometry', in: *Essays in Greek Philosophy* (Oxford 1969) 16-38; J. Hintikka and U. Remes, *The Method of Analysis. Its Geometrical Origin and Its General Significance* (Boston 1974). The evidence for geometrical 'analysis' however is scattered and puzzling and so difficult to compare with Galen's methodology.

<sup>105</sup> See in particular Galen's 'intellectual autobiography' at *Lib. Prop. SM* vol. II pp. 115-7 M. with Donini (1992) 3486 f. Cf. *Aff. Dign.* 8.5-6, p.28.19 ff., *Pecc. Dign.* 3.1-9, p. 46.1 ff. De Boer with Mansfeld (1994) 128.

<sup>106</sup> *Lib. Prop. SM* vol. II p.117.4 ff. M.; cf. *Pecc. Dign.* 4, p. 54.9-11 De Boer where the method of working one's way upward through the intermediate steps (τῶν μεταξὺ γιγνομένων) to the first principles is called analysis and ascribed to 'some philosophers'; cf. *ibid.* 3.1, p.46.1 ff. For the general assumption that these philosophers are Peripatetics see Donini (1988) 101 f. Note that in the preceding context, *ibid.* p. 54.17 ff., the method is illustrated by reference to disciplines which use mathematics 'as a stepping-stone', e.g. astronomy; see further below. Platonists would also point to the philosopher's ascent to—and descent from—the unhypothesized first principle as described at *Rep.* VI 509d-11e. Here they would find another example of a method charted by Plato and further elaborated by Aristotle.

geometry', for meeting these requirements.<sup>107</sup> But, naturally enough, he turned to the Aristotelian *Analytics* as the main available embodiment of this ideal of axiomatized science.

'Analysis', like diaeresis, covered various procedures.<sup>108</sup> Let us consider what Galen himself has to say about it. In analysis

one will first uncover propositions from which the problem in question can be directly solved but which themselves are not axioms; these need certain other propositions for their proof, and those again need others until you ascend to the primary propositions' (*MM* Xp. 33 K.).<sup>109</sup>

Obviously, what we have here is elementary and very similar to the basic techniques we have found in Alcinous and Clement. Other traditional elements in Galen include his distinction between three 'dialectical methods': analysis, division, and demonstration.<sup>110</sup> The above definition of analysis can be paralleled from

<sup>107</sup> See e.g. *PHP* IV 4.38 = Posid. T 83 E.-K. Cf. Donini (1982) 127; I. Garofalo-M. Vegetti (eds.), *Opere Scelte di Galeno* (Torino 1978) 38 f., Moraux (1984) 718 f.

<sup>108</sup> Alcin. *Did.* 5.157.11 ff. distinguishes three senses; Ammonius, *In An. Pr.* p. 5.5 ff. esp. 26 ff. gives no less than five, in addition to Geminus' account of geometrical analysis. On the ancient method of diaeresis see further Mansfeld (1992b) Appendix II (pp. 326-331).

<sup>109</sup> Cf. the corresponding accounts, *Pecc. Dign.* 5, p. 54.9 ff. De Boer, on which see below; *MM* I 3: X p.30 K. and esp. *Ars. med. pr.* I, p.305 K.: τρεῖς εἰσὶν αἱ πᾶσαι διδασκαλῖαι τάξεως ἐχόμεναι. πρώτη μὲν, ἡ ἐκ τῆς τοῦ τέλους ἐννοίας κατ' ἀνάλυσιν γινομένη. δευτέρα δὲ, ἡ ἐκ συνθέσεως τῶν κατὰ τὴν ἀνάλυσιν εὐρεθέντων. τρίτη δὲ, ἡ ἐξ ὅρου διαλύσεως. On the text cf. J.S. Wilkie and G.E.R. Lloyd, 'The Arabic version of Galen's *Ars Parva*', *JHS* 101 (1981) 145. With the definition of analysis as proceeding ἐκ τῆς τοῦ τέλους ἐννοίας see the account of indication (ἐνδειξις) as distinguished from proof (ἀπόδειξις) at *Inst. log.* XI, p. 24.14-17 Kalbfleisch; on indication in Galen's argument see *infra*, pp. 60 ff. The authenticity of the *Ars med.* has been called into question by J. Kollesch, *Anschauungen von den ἀρχαί in der Ars medica und die Seelenlehre Galens*, in: Manuli-Veggetti (1988) 215-29, who submits that it is an early, pre-fourth-century elaboration of Alexandrian Galenism (p. 229). A close verbal parallel to *MM* X 33 is found at Alcin. *Did.* 5.157, which proves the scholastic background of the relevant Galenic passages. For synthesis and the synthetical method see further *Diff. Puls.* II 6: VIII, p.601; II 7: VIII, p.608 f. K. *PHP* IX 5.13 (p.566.24 De Lacy), but note that here synthesis belongs with diaeresis rather than analysis. Cf. *Diff. Puls.* VIII 609 K.: 'Anyone who claims to be a logician must have the ability to *analyse* into its primary and simple conceptual elements whatever complex item may be proposed.' But this sense seems very close to diaeresis, one of whose varieties was indeed also termed analysis, see *PHP* IX 9.24 ff.

<sup>110</sup> On analysis as one of these methods (also called 'teaching methods', διδασκαλῖαι) see A.C. Lloyd, *The Anatomy of Platonism* (Oxford 1990; repr. 1991) 8-11. Though Lloyd is concerned with the Neoplatonist commentators, his observation neatly fits the passages from Galen at issue here, so the tradition

Alexander's commentary on the *Prior Analytics*, p. 7.12-5 Wallies, i.e. his account of various current senses of the term analysis (p.7.12-33). And a little earlier, at p. 6.27 ff., he says that in the *Prior Analytics* Aristotle discusses the discovery<sup>111</sup> of premises, saying how we may discover premisses and so obtain appropriate (οἰκεῖα) premises in each figure (the *Posterior Analytics* being concerned with demonstrative syllogisms in particular).<sup>112</sup> As will be shown, certain features of Galen's argument can be related to Aristotelian stipulations in the *Prior Analytics* concerned with finding proper premises.<sup>113</sup>

More interesting from the point of view of Galen's own response to traditional ideas are chapters 4 and 5 of his *On the Diagnosis and Therapy of the Errors in Everyone's Soul* (*Pecc. Dign.* pp. 53.9-59.8 De Boer).<sup>114</sup> Here Galen is concerned with the consistency of one's actions with the ultimate goal (τέλος): even if one is not mistaken about the goal, one could err in one of the individual acts through ignorance of the consistency (viz. between goal and actions, p. 53.10-12 De Boer). The solution lies in the ability to refer each individual action to the goal as the 'first criterion' of them all. This criterion, once established, is agreed upon and requires no proof of its own because of this would create an infinite regress (*ibid.* p. 53.21-54.11). Galen goes on to say that this method is called 'analysis' by 'some philosophers', viz. 'a way upwards through intermediate items towards the first criterion' (*ibid.* p. 53.9-11). The difficulty of this undertaking is clear from the dismal performance of certain philosophers; training is a must for the beginner. Here Galen recommends the mathematical disciplines arithmetics and geometry as being capable of testifying to the accuracy of the

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concerned is older than his account seems to presuppose (cf. his suggestion [p. 11]: 'The way had been opened for the Platonists by the authoritative Alexander [*In Analytica priora* 44]'). According to Lloyd 'All this implies a greater attachment than we find in Aristotle's *Prior Analytics* to the dialectic of the *Topics* ...' (p. 10). But note that Aristotle himself, *APr.* A 27-30, links his account of the selection of premises to the *Topics*, to which he refers for a more detailed account (46a28-30); see further *infra*, p. 108.

<sup>111</sup> Cf. *ibid.* p. 1.7.

<sup>112</sup> Cf. Alex. in *APr.* p.275.32-7; *Quaest.* 4.4-7. Accounts of the varieties of analysis (often adduced in elucidation of the title of Aristotle's *Analytics*) are traditional, cf. Ammonius in *APr.* 5.10-7.25; Philop. in *APr.* 307.6-8; scholium in Arist. 140a35-41.

<sup>113</sup> See *infra*, pp. 106 ff.

<sup>114</sup> This text is subjected to a meticulous analysis by Donini (1988), esp. 79 ff., who is concerned with tracking down Aristotelian anticipations.

intermediate steps which have been found; the same holds for astronomy and the art of building, which use mathematics as their stepping-stone (*ibid.* p. 53.11-19). He then gives an example from architecture: the construction of a sundial. Its diagram, the form of its parts, and the suitable materials are discovered through analysis and synthesis, which together constitute the logical (or rational) method (λογικὴ μέθοδος). When this method has persuaded us that we have found what we looked for, we next proceed to put things into practice, i.e. to construct the sundial in the way suggested by this method. Galen indicates three ways as to how its accuracy is empirically established: when the first sun ray coincides with the first line of the diagram and the last ray with the final line; when diagrams of several clocks agree; when a water-clock confirms the time indicated by the sundial (c. 5, p.54.20-55.27). In this way, then, we have obtained a 'clear means of recognizing' (γνώρισμα ... ἐναργές, p. 55.22-23) that the projected aim has been found, a 'clear' or 'empirical test'.<sup>115</sup>

Galen next dwells on the third means of confirmation, viz. the water-clock. His emphasis on empirical testing and obvious results here does not particularly fit the moral concerns which prompted this example.<sup>116</sup> Presumably, he brings to bear a much more general point about demonstrative method he had developed elsewhere. This assumption receives support from the passage where Galen wraps up his treatment of the water-clock (5.16). Here he boasts that although geometry (including the analytical method) has been elaborated in the course of many generations, preceding workers in the field have not devised the kind of practical application (χειρουργήμα) just illustrated with reference to sundials and water-clocks. This, then, is his own achievement.

<sup>115</sup> Cf. p. 56.24: ... τῇ πείρᾳ βασανίσαντες ... p.57.10-12: οὕτω δὲ καὶ κλεψύδρας καταγραφὴν ὁ λόγος εὑρεν ἀναλυτικῇ μεθόδῳ ζητήσας, ἥς πάλιν ἡ βάσανος ἐναργής ἐστι καὶ τοῖς ἰδιώταις. See further c.3, p. 47.16-21 De Boer, on various 'geometrical' sciences which admit of testimony or testing through evident phenomena.

<sup>116</sup> He is explicit on this point at *Pecc. Dign.* 3.5-7, p.47.4 ff. De Boer, a passage which in part runs parallel to the present one. He recommends solving geometrical problems as a means to become experienced in applying the demonstrative method (ἀποδεικτικὴ μέθοδος) because the solutions of these problems are confirmed in an obvious way by the subject-matter itself. Once one has practised a lot with geometrical procedures, one could go on to tackle ethical and other important problems whose solution does not admit of direct and evident confirmation.

The reference to architecture, mechanics and the like here represents another interest typical of Galen.<sup>117</sup> What constitutes their appeal to Galen is that their products can be put to the test in a way which is clear to everyone who is in his right mind. The addition of empirical testing to the logical method (i.e. analysis/synthesis) reflects a familiar Galenic scheme, viz. the duo reason/experience. Galen's claim to originality in this respect may not be wholly unjustified. The Platonist account of philosophical method offered in Clement, *Strom.* VIII, which is closely similar to this and other Galenic passages in all other respects, differs from the latter in specifying proof (ἀπόδειξις) with the downward route from the axioms, while agreeing insofar as analysis is concerned (8.1). In other words, proof here coincides with what Galen calls synthesis.<sup>118</sup> As we have noticed, analysis and synthesis—subsumed under the 'logical method'—are interrelated means of finding things. Although they lead to some amount of clarification of the latter, definitive and clear confirmation that what is looked for has indeed been found is only provided by the subsequent empirical test. Only when the later stage has been added do we have proof or demonstration in its proper sense.<sup>119</sup>

This general scheme can be paralleled from the argument of *PHP*. It can in fact be summarized by the syllogism underlying it. Here, as we have seen, Galen both recognizes the 'downward' route from the principles to the examined conclusion (II 3.4-7), and follows the 'upward' way by tracing the intermediate term connecting the two terms of the conclusion and pointing to the essence of the object under inquiry (II 4.5 ff.). As his remarks prefacing the discussion of the liver show (VI 3.2), this does not yet amount to proof in a full or strict sense.<sup>120</sup> This requires experimental testing such as is feasible in regard to the brain and heart, but not the liver. The difference between the procedures in either case is explained in terms of clarity (VI 3.2), as in the account from

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<sup>117</sup> Galen also drew metaphors from these fields to describe physiological processes, see Vegetti (1993) 66-71.

<sup>118</sup> Cf. Ammonius cited *infra*, n. 123.

<sup>119</sup> At *PHP* II 3.1 Galen claims to have clarified the statements made by the ancients (i.e. primarily Aristotle and Theophrastus) on proof (ἀπόδειξις). This claim may certainly be compared with that at *Pecc. Dign.* 5, p.59.6-8 and discussed *supra* in our text. This reference to his forerunners here no doubt includes Aristotle; cf. *ibid.* p. 54.10 with note *supra*, n. 106.

<sup>120</sup> On this passage see further, *infra*, p. 56.

*Pecc. Dign.* More specific (including verbal) similarities emerge from a comparison of *Pecc. Dign.* p. 54.8-11 with *PHP* II 2.2-4, both of which describe the principle or criterion to be established first in the same terms: it is an agreed-upon (ὁμολούμενον) criterion (κριτήριον, κανών), a mark on which to hold one's eye (σκόπος, ἐπ' αὐτὸ βλέποντα),<sup>121</sup> used with respect to all particulars (τὰ κατὰ μέρος). At II 3.15-17, as at *Pecc. Dign.* 54.11 ff., he stresses the need for training and singles arithmetic out as an example (it is one among a plurality in the parallel account). More parallels might have been available if the text of *Pecc. Dign.* at this point had not been lacunose.<sup>122</sup>

Analysis was aptly defined as 'the discovery of demonstration'.<sup>123</sup> Galen's concern with analysis in this sense is attested by the title of his lost *On Proof-Discovery* (Περὶ ἀποδεικτικῆς εὑρεσις).<sup>124</sup> In the philosophical texts of later antiquity the term discovery often indicates the subject-matter of Aristotle's *Topics*. But in studying its reception in such authors as Galen, we should not confine our attention to this work but take into account the process of simplification and ordering that Aristotle's rather unwieldy collection underwent in the course of the exegetical tradition. It is to this tradition that we shall turn in Ch. 5.2.

<sup>121</sup> Cf. also the definition of analysis cited *supra*, n. 109.

<sup>122</sup> Cf. Donini (1988) 81 ff.

<sup>123</sup> Geminus *ap.* Ammonius, *In APr.* p. 5.22: ἀνάλυσις ἐστὶν ἀποδείξεως εὑρεσις. Cf. Ammonius' explanatory note: ἀπὸ γὰρ τοῦ συμπεράσματος ἔρχονται οἱ ἀναλύοντες· καὶ ἂν εὕρωσιν ἀναλῦσαι, εὐχερῶς ἂν ἀναλύοντες εὐρήκασιν συνθέντες ποιοῦνται τὴν ἀπόδειξιν (*ibid.* p. 5.28-31).

<sup>124</sup> *Lib. Prop. SM* II p.120 M. This may have been a so-called *Ergänzungsschrift* for the relevant parts of the *On demonstration*, where Galen had also been concerned with the discovery of proof; cf. e.g. *MM* X p.42 K. *On Dem.* as underlying the method of *PHP*, cf. *supra*, p. xiv.

## CHAPTER THREE

### THE SEAT OF THE MIND INQUIRY AND REFUTATION

(*PHP* II 4.5-8.28)

#### 3.1. *Introduction*

In the introductory section of book II, Galen announces that he will be concerned both with finding scientific premises and with exposing unscientific ones, and that he will pay special attention to those premises which yield a proof that appears scientific but is not really so—premises of the dialectical variety (*PHP* II 4.1).<sup>1</sup> As we have seen, both kinds are based on features, or attributes (ὕπαρχοντα), of the subject under inquiry; they differ in that the scientific or demonstrative ones pertain to essence, whereas the dialectical ones do not. Galen's procedure, then, is designed to effect, on this criterion, a sifting among the arguments singled out for discussion and by the same token among the attributes on which these arguments are based.

In the present chapter we turn from Galen's methodological pronouncements to his actual method in dealing with arguments from his adversaries. A large part of the second book is concerned with various arguments based on attributes of the category, or type, 'position' (*PHP* II 4.6-5.97; 8.3-18). But there is also a section expounding experimental proofs for the function and mutual independence of the heart and the brain (ch. 6). In ch. 7 he interrupts his discussion in terms of attributes by imputing to Chrysippus an instance of self-contradiction concerning perception. Next, he tackles an arguments which, he holds, are concerned with position, 'formation' (διάπλασις) and 'motion' (κίνησις) respectively (*ibid.* 8.18, 21-25). The last argument of this series (Aristotle's observation of νεῦρα on the heart) is derived from structure, or form, of the heart (*ibid.* 8.27-8).

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<sup>1</sup> In the argument at *PHP* II 4.5 ff. Galen is not concerned with rhetorical premises, or arguments (cf. 4.4), considering this type of argument to have been refuted in the foregoing: see *supra*, p.16 f. It is only at *PHP* II 8.29 ff. that he reverts to arguments which belong to this category; cf. 8.51 with *infra*, p. 102.



### 3.2. *The Position of the Heart and Brain*

Galen says that the attributes of the heart must be mentioned 'first by main heads and genera, then also by parts and species'. Apparently, the list of position, size, texture, conformation, state, and motion (II 4.6)<sup>2</sup> represent the 'main heads and genera'. The 'parts and species' are not specified; but the subsequent account of the heart's position (4.7-11), notably its relative position in regard to a number of other organs, shows what Galen has in mind. Position (θέσις) is taken up first 'to show how many propositions (προτάσεις) are formed from it' (II 4.6)—a phrase which recalls the Aristotelian demand for a rich supply of premises at the beginning of a dialectical discussion.<sup>3</sup> This is illustrated by a number of arguments (ἐπιχειρήματα,<sup>4</sup> 12, p.118.19) (4.12-18):

1. With regard to the whole body:  
'the heart lies in the middle of it for an even distribution of the powers the heart sends out to it'.
2. [With regard to a specific part of the body:]
  - 2.1. the trachea:
    - 2.1.1. the heart sends the voice out through it.
    - 2.1.2. 'by connecting the heart with the use and activity of respiration.'
  - 2.2. the thorax:  
One could 'make something from that too'

Galen is mainly concerned with the *attribute* 'position' and the arguments derived from it, much less with polemic against those who argue from it. Accordingly, he attaches no names to the above arguments, although their provenance can be easily re-traced.

The first type of argument (1) reflects one or more passages from Aristotle.<sup>5</sup> Thus *PA* Γ 4.665b18-20 identifies the heart's middle position with the place of governance (though qualifying the sense of 'middle' in accordance with *ibid.* 666b7-11; see below). And 666a14-5 gives the consideration κατὰ τὸν λόγον that 'wherever

<sup>2</sup> On the list of attributes see further *supra*, p. 28

<sup>3</sup> See *infra*, p. 56.

<sup>4</sup> This term has the sense of argument rather than the more specific one of dialectical argument, cf. II 3.9.

<sup>5</sup> Cf. S. Byl, 'Note sur la place du coeur et la valorisation de la ΜΕΣΟΤΗΣ dans la biologie d'Aristote', *AC* 37 (1968) 467-76.

possible there must be one ἀρχή; and the most natural place for that is the centre because there is only one centre which is equally or nearly equally accessible from every direction' (cf. 12, p.118.20 δικάϊας—21 αὐτῷ). Galen will have interpreted and assessed this statement as a 'logical principle' or axiom. But the Stoics may also be included in his critique of argument (1).<sup>6</sup>

Behind the two arguments here subsumed under 2.1 the Stoics are lurking. In what follows (*PHP* II 4.19-5.97), Galen will extensively discuss arguments concerned with speech, including, most notably, an argument by Zeno and its versions by Diogenes of Babylon and Chrysippus (i.e. argument 2.1.1 above). Apparently, the argument concerned with respiration (i.e. 2.1.2 above) pertains to the Praxagorean and Stoic view of respiration as nourishing the psychic πνεῦμα.<sup>7</sup>

The heart's midmost position in the thorax (argument 2.2 above) is based on a principle which is analogous to that concerned with the middle of the whole body and so lacks cogency as well (p.118.32 κατὰ—33 παντός). Here no denial of the fact as such is appended; Galen subscribes to the observation on which the argument is based (4.7, p.118.2: κείται δὲ ὡς πρὸς μὲν τὸν θώρακα μέση πῶς μᾶλλον).<sup>8</sup> His imprecise formulation here may reflect the fact that Aristotle had distinguished between animal and man, saying that in animal the place is in the middle of the breast, whereas in man the heart inclines slightly to the left (*PA* Γ 4.666b7-9). In fact Aristotle was more accurate than Galen, who often tries to pass over this observable fact—probably because the anatomical evidence presented by most animals tells in favour of the central position.<sup>9</sup>

The above arguments, Galen says, cannot be used to prove that the heart is the source, or principle (ἀρχή), of sensation and voluntary movement. The first argument is based on an accurate claim, but even if granted 'it does not necessarily follow from its being situated in the middle of the animal that it is the ἀρχή of everything' (cf. 4.15). At *PHP* II 5.1-2 Galen says that the mistake is

<sup>6</sup> Cf. Calc. *In Tim.* ch. 220 (*SVF* III 879, p.236.10-17); *PHP* II 5.34-5 (*SVF* I 151; II 882).

<sup>7</sup> See *infra*, p. 84, 92 ff., 239 ff.

<sup>8</sup> For Galen on the heart see further *UP* VI, *AA* VII 7, II 605 ff. K.

<sup>9</sup> *UP* VI 2 p. 303.7 ff. Helmreich; *AA* VII 7, II p. 605 f. K.; cf. Harris (1973) 268 ff.

not about position but about opinion about position (*ibid.* 5.2). Underlying all arguments about position is the following assumption:

[A] All things active have their principle (ἀρχή) nearby.

This is 'neither evident to the senses nor to the mind, so as to be credible and primary in itself'. In other words, it does not qualify for the status of axiom (II 5.3-5).<sup>10</sup> Proximity of the active cause is not required for the operation of function (including of course those specified in definition [D] of the regent part).<sup>11</sup>

Galen also briefly considers three arguments in favour of the *brain* (II 4.17-19): no compelling argument can be drawn from the fact that

- (1) the head occupies the upper position, being, as it were the 'acropolis' of the body.
- (2) the senses are stationed around the brain 'like bodyguards'.
- (3) that the head's position is analogous to that of the heaven, the 'abode of the gods'.

The similes of the acropolis and the bodyguards are Platonic (cf. *Rep.* 573e7, 575b2; *Tim.* 70a6; 70b2) and found their way into Middle Platonist literature.<sup>12</sup> Ptolemy too uses the location of the eyes and ears as an argument for the primacy of the brain (*Judic.* 16, p.23.11-6 Lammert). The common analogy between macrocosm and microcosm was used by dissident Stoics as well.<sup>13</sup> Galen says that arguments of this type are liable to the same objection as the others based on position, though he cannot refrain from adding that they are 'much more convincing'<sup>14</sup> than the latter. It is interesting to observe that the validity of the same argument is discussed and on the same grounds rejected by Plutarch in the ninth of his *Platonic Questions*. In regard to Plato's simile of the soul's three parts to a harmony of intermediate and topmost and nethermost strings (*Rep.* 443d5-7), he first presents the argument of those

<sup>10</sup> Cf. Barnes (1991) 70, 76 ff.

<sup>11</sup> See *supra*, p. 26 f.

<sup>12</sup> Alcin., *Did.* 23.176.11 f., 173.8 f. Philo, *Somn.* I 30. For further references to Galenic and other passages, see De Lacy *ad* 120.1 and 120.3-4. On the metaphor of the acropolis cf. Mansfeld (1990b) 3105 n.202.

<sup>13</sup> Cf. Philod. *De pietate* col. IX.9 ff. (= SVF II 910); on these Stoics see further *supra*, p. 223.

<sup>14</sup> The qualification 'convincing' (πιθανός) does not imply that Galen assigns this argument to the *rhetorical* class, though it standardly labels rhetorical arguments; see *infra*, p. 16. cf. *PHP* I 8.4, where it is used in regard to another 'dialectical' argument.

Platonists who infer the hierarchic order among the parts from their position within the body.<sup>15</sup> In the second half of the 'question' he refutes the argument in strong terms reminiscent of Galen's line of argument: 'the parts of the soul should not be constrained by location or by nomenclature, but their function and interrelation must be put to the test. In fact, that in the body of man the rational part has been situated as first in local position is accidental (κατὰ συμβεβηκός)' (1008F-1009A).<sup>16</sup>

Galen next discusses at length the powerful Stoic argument from speech, first formulated by Zeno. His version is quoted at II 5.8 (SVF I 148):

Speech (φωνή) passes through the windpipe. If it were passing from the brain, it would not pass through the windpipe. Speech passes from the same region as discourse.<sup>17</sup> Discourse (λόγος) passes from the mind (διάνοια). Therefore, the mind is not in the brain.

Galen goes on to present the versions of this argument by Zeno's successors Diogenes of Babylon (5.9-13 = SVF III Diog. Bab. 29) and Chrysippus (5.14-20 = SVF II 894).<sup>18</sup> The reason is that he had quarrelled with a Stoic over the meaning of the word here translated as 'passes' (χωρεῖ) in Zeno's original version. Galen produces the versions of the other two Stoic scholars to show that he had been right to take the verb in the sense of 'goes out' or 'is sent out'. The Stoic opponent is said to have contented himself with denying that this was the meaning (5.21-4). This point may seem trivial, but it is useful in that it gives us an impression of the contemporary setting of Galen's argument as well as of the exegetical turn debates could take.<sup>19</sup> Galen was engaged in debate about texts, and the Stoic speech argument was still influential: it was 'admired' by the Stoics (5.7).

Galen's refutation of Zeno's speech argument has been competently analysed by others and need not detain us.<sup>20</sup> He first

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<sup>15</sup> Cf. esp. *Plat. Quaest.* 1008A on the head and its topmost position, which suits reason as the ruling power.

<sup>16</sup> Cf. Clement, *Strom.* VIII 14.4, p. 88.25 ff. Stählin, where the issue of the seat of the regent part of the soul is mentioned as an example of a question, which is approached by starting from the attributes because the essence (viz. of the organ assumed to be the seat of the intellect) is unknown; cf. *supra*, pp. 20, 29 f.

<sup>17</sup> On the medical theory of the continuity of the heart with the arterial system including the windpipe (the rough artery) see *infra*, p. 84.

<sup>18</sup> Cf. *infra*, p. 66.

<sup>19</sup> See *supra*, p. xxvi.

<sup>20</sup> See Ebbesen (1981) 84-6; Hankinson (1991a) 215-8, 232.

argues that the major premise (p.130.3 εἰ—ἐχώρει) has a semblance of truth because it uses a preposition, ἀπό ('from'), which is ambiguous because it may cover both ἐκ ('out of') and ὑπό ('by the agency of'). If one replaces it with the first (i.e. ἐκ) the axiom is true but the argument becomes incoherent (5.84). In exploiting this ambiguity, Zeno has produced an argument that does not even qualify for the dialectical class but belongs in the sophistical one.

But Galen also considers the argument as a dialectical one based on an attribute of the type 'position', and supported by the axiom [A]. In other words, its underlying assumption is that because the vocal and respiratory parts are near the heart their activity is directed from that organ. To drive home the point that this underlying assumption is unconvincing he formulates an argument concerned with the expulsion of urine which runs parallel to the Stoic speech argument—a so-called 'parody' (παραβολή).<sup>21</sup> Whether one prefers the brain or the heart as seat of the regent part proximity or distance is not relevant with respect to voluntary movement, which is also instantiated by this particular activity (cf. definition [D]). Those who, like Zeno, employ arguments from position will not fail to entertain contradictory assumptions (5.31-45).

But in addition to logical and theoretical objections, Galen also produces experimental evidence. If the windpipe of an animal is cut under the larynx, it continues breathing but it can no longer use its voice (II 4.10). To this vivisectionary experiment an observation from clinical practice is added: when a man happens to be wounded in the same way, you can ask him to say something; but however hard he tries he only produces a whistling exhalation (II 4.21-22). Obviously, these results effectively disprove the Stoics' assumption about the source and route of speech, on which their argument is based.<sup>22</sup> Furthermore, he reports a series of sophisticated vivisections which demonstrate how severing the recurrent laryngeal nerves at certain spots paralyses respiration and speech. These functions, then, are not governed by the heart but by the

<sup>21</sup> On this form of argument cf. Schofield (1983) 34 ff.

<sup>22</sup> The inferential scheme underlying Galen's experimental reasoning here is the so-called *modus tollendo tollens*, on which as an instrument of experimental refutation see G.E.R. Lloyd, *Magic, Reason and Experience. Studies in the Origins and Development of Greek Science* (Cambridge 1979) 25, 171 f. Cf. also *An in arteriis sanguis contineatur* 1, pp. 144-6 Furley-Wilkie, where Galen avails himself of Stoic formal logic to describe his experimental proofs.

brain; the larynx and the tongue are the organs which transform breath into spoken language (II 4.25-39).<sup>23</sup> Galen adds experimental reports according to which damaging the heart does not deprive the animal of respiration, speech, or any other activity directed by the will. By contrast, these functions will be impeded when pressure is applied to the brain (II 4.42). He goes on to describe something from common experience. On the occasion of sacrifices bulls whose heart already lies on the altar are observed to continue moving, breathing and bellowing for some time. The heart of bulls thus cut is seen pulsating for quite a long time, along with the arteries. By contrast, bulls that are cut at the first vertebra lose respiration and speech immediately (II 4.45-48). Galen concludes, first, that the brain is the principle of voluntary motion and perception; and, secondly, that neither the brain and the heart do not need each other, as indeed one would expect from their having distinctive motions of their own. Here it becomes apparent how much the supposed automatism of the heartbeat counted for Galen: it confirms the status of the heart as the container of a distinct psychic faculty (4.49).<sup>24</sup> The next step—that of connecting certain passions with the pulsative motion—is not made here. But the emotions are involved in a more implicit way unwelcome to Galen's thesis: the description of the bull fleeing and vehemently bellowing while its heart already lies on the altar (45-47) suggests that the passions must reside in the brain as well.<sup>25</sup> Nonetheless, Galen's experiments prove very effective means of refutation and corroboration within the context provided by the doctrines at issue. As such they are aligned with more fortuitous kinds of observations (of certain patients, or bulls being sacrificed), with no difference in epistemic status being indicated. Although Galen distinguishes between 'everyday' and 'technical' experience, the one is not privileged above the other as a source of knowledge.<sup>26</sup>

<sup>23</sup> *Prae.* 5.19-21 Nutton; *UP* VII 14-15, vol. 1, pp. 412-25 Helmreich; cf. also J. Walsh, 'Galen's Discovery and Promulgation of the Function of the Recurrent Laryngeal Nerve', *Annals of Medical History* 8 (1926) 176-84.

<sup>24</sup> On the automatism of the heartbeat according to Galen see esp. *AA* VII 7: II 612-15 K. with Siegel (1968) 44-7; Harris (1973) 270 f. The Platonic idea of soul as a principle of motion (ἀρχὴ κινήσεως) is relevant in this connection, see e.g. *Phaedr.* 245c-d; cf. also *infra*, p. 46.

<sup>25</sup> Likewise the association of so-called 'forced' respiration with certain passions raises the question of the relation between them and the functional centre of respiration, viz. the brain (II 4.33)

<sup>26</sup> *PHP* III 8.35, on which see also *supra*, p. 15 f.

### 3.3. *Embryological Arguments*

Galen also briefly discusses two arguments derived from the field of embryology. One of these is based on the assumption that the heart is the first organ to be formed (διαπλάττεσθαι) in the embryo (*PHP* II 8.21), the other on the assumption that the heart is the first of the parts of the animal to move (κινεῖσθαι) and the last to stop (*ibid.* 8.23). The first of these recalls the type of attributes labelled as διάπλασις on Galen's list (4.6). In that case we should render 'formation',<sup>27</sup> though the sense of 'conformation' or 'structure' is possible and applicable to other arguments dealt with by Galen (see § 3.4). The second argument may represent another type of attribute listed at the outset, viz. movement (κίνησις).

Several sorts of opponents are involved. Galen mentions Aristotle and Chrysippus in what follows (*ibid.* 8.25), but he merely says that their view is not proved by the arguments under discussion. Presumably, then, he has certain contemporaries in mind.<sup>28</sup> In fact, the same arguments turn up in Alexander's demonstration in support of the cardiocentric view (*De an.* p.95.6-12 Bruns). It is unlikely that Galen is reacting to Alexander, so that he is probably refuting earlier Peripatetics.<sup>29</sup> But of course, as Galen knew, the embryological theorems involved, and the arguments based on them, can be traced back to Aristotle.<sup>30</sup>

Likewise, the argument presented at 8.21 may have been employed by Chrysippus, followed by later Stoics. In fact, at *Foet. Form.* IV p. 674 f. K. (*SVF* II 761, 1st text), Galen ascribes it to 'Chrysippus and many other Stoic and Peripatetic philosophers' (cf. *ibid.* 677, 697-8 K. = *SVF* II 671, 2nd and 3rd texts). Chrysippus' version may indeed have been put forward in his *On the Soul*.<sup>31</sup> The Stoics,

<sup>27</sup> On the word as referring to the process of the shaping of an embryo see *PHP* VI 6.23 with De Lacy ad *PHP* p.400.1.

<sup>28</sup> Cf. *Foet. Form.* IV 674 K. On anonymous arguments in *PHP* II see further *infra*, p. 72.

<sup>29</sup> There are more points of contact between *PHP* and Alexander's extended demonstration at the end of the *De an.* (pp.94.7-100.17 Br.), which should be explained along the same lines; see further *infra*, p. 73 ff.

<sup>30</sup> See *PA* Γ 4.666a10; *GA* B 1.734a25-34; 4.740a3-4; *HA* Z 2.561a11-13; *Iuv.* 3.468b28; *Met.* Δ 1.1013a ff. on which cf. Mansfeld (1990b) 3212.

<sup>31</sup> Cf. *Foet. Form.* IV 699 K., where, in connection with Stoic doctrines (= *SVF* II 743; cf. Tieleman [1991] 121), Galen refers to his detailed discussion in 'a book in which I investigate Chrysippus' argument in his *On the Soul*. The reference must be to *PHP* but fits no passage in our extant text. A parallel case is found at *UP* XV 5, vol.2, p.357 H. (IV, pp.238 f. K.), where Galen refers to

no less than the Peripatetics,<sup>32</sup> often referred to embryology in the context of psychological issues.<sup>33</sup>

I now proceed to Galen's refutation. He claims that the first premise (*ibid.* 8.21) belongs to the dialectical class because it indicates the principle 'with respect to generation' (τὴν κατὰ γένεσιν scil. ἀρχήν), not the principle in the functional sense (τὴν κατὰ δύναμιν ἀρχήν), which pertains to essence.<sup>34</sup> The other argument (*ibid.* 8.23), by contrast, may qualify as scientific on the grounds that it indicates (ἐνδείκνυται) the heart as a principle of motion (ἀρχὴ κινήσεως) and hence the seat of a psychic power.<sup>35</sup>

Galen refers here to his analysis of the concept of ἀρχή in the lost part of the first book (*ibid.* 8.22, p.160.33 f.), where presumably other senses were distinguished as well.<sup>36</sup> This analysis may be taken to exemplify 'division', one of Galen's three principal logical methods.<sup>37</sup> Its position at the beginning reflects Galen's regular procedure of determining the common usage of key terms first.<sup>38</sup>

The heart is a 'principle of motion', but, importantly, not of

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*PHP* for his doctrine 'that the embryo is an animal (ζῷον), at least when all its parts are formed'. His view is opposed to Chrysippus', who believed that the embryo becomes an animal only at birth, when the physical πνεῦμα is cooled by the first inhalation and turns into psychical πνεῦμα; see *SVF* II 806, 756. No doubt Galen's disagreement with the Stoic view may have occasioned him to discuss the matter. However, nothing in *PHP* corresponds to the reference in *UP* either. As a repeated mistake seems excluded, the references must be to a discussion in the lost part of *PHP* I. Chrysippus' view may well have been introduced in connection with the distinction between the genetic and ruling principles for which Galen refers to (the lost part of) *PHP* I at II 8.22 and VI 6.23 (see I, *Testimonies and fragments* IV, p.66 De Lacy); cf. *Foet. Form.* IV, pp. 674, 677, 698 K. (*SVF* II 761). On Stoic embryology and the scholastic debate on the status of the embryo see further Tieleman (1991).

<sup>32</sup> It appears from Lucian, *Vit. Auct.* 26, p.47.17 ff. Macleod that the Peripatetics of the imperial period enjoyed a reputation for being interested in all things embryological. Galen's *On the Formation of Embryos*, written at the end of the 2<sup>nd</sup> c. CE, also attests to a lively embryological interest among Peripatetics and others; see e.g. *Foet. Form.* IV 674, 686 K.

<sup>33</sup> Cf. *Foet. Form.* IV 676 K.; for the argumentative context see Tieleman (1991) 123.

<sup>34</sup> Cf. Arist. *GA* B 1.734a25-34, who rejects the identification of the two principles on somewhat different grounds; see also Nickel (1989) 77 ff.

<sup>35</sup> Cf. the idea of soul as a principle of motion, Pl. *Phaedr.* 245c-d. Galen also speaks of τὴν κατὰ δύναμιν ἀρχήν; cf. *PHP* III 6.5, p.210.27 f.; VI 4.4, p.384.14 f. 3.5, p.374.1 f.; VII 3.3, p.440.3. For the linking of δύναμις and κίνησις see esp. *Nat. Fac.* I 2, *SM* III, p. 105 Helmreich. On κίνησις as one of the categories see *supra*, p. 28 n. 86.

<sup>36</sup> Cf. *PHP* I, *Testimonies* IV = p.66.26 ff De Lacy.

<sup>37</sup> Cf. *supra*, p. 28 f.

<sup>38</sup> Cf. *supra*, pp 24 ff.; *infra*, p. 104; cf. *Pecc. dign.* 1, p.41 De Boer.



every motion. It is the principle in regard to the pulse, which appears different in kind, i.e. in essence, from voluntary motion. This qualification is fundamental: distinct types of psychic motion *indicate* a corresponding difference between causes, or principles, of the motions in question (see *PHP* II 4.49; VIII 1.2).<sup>39</sup> For the determination of the *seat* of the psychic motions, or powers, it is therefore imperative to start from their partition along Platonic lines rather than from a unitary conception as the Stoics do (see below). Accordingly, one should not infer the presence of the will and perception from the heart's non-voluntary motion (cf. *ibid.* 8.24, p.162.1 f.). This is the mistake which, as Galen never tires of claiming, vitiates Chrysippus' demonstration.<sup>40</sup> What is at issue here is the latter's appeal to people's experience of certain passions as arising in the heart, some of which are obviously associated with the heart's beating (anger, fear).<sup>41</sup> But Galen's point does not concern merely the pulse as distinct from voluntary movement; apparently, he also claims that our direct experience reveals the essential difference between intentional, or rational, action, and that resulting from *emotions*. Thus this difference turns up again at the end of book V (7.74 ff.) as an example of those assumptions which one is permitted to illustrate by 'witnesses' from common experience or poetry. Such witnesses should serve as a simple reminder of 'what we experience on each occasion' and not of those things that call for argument or proof. They should be called upon to testify 'either about what appears evidently or about things the indication of which lies close to sense-perception ...' (*ibid.* 84).<sup>42</sup>

### 3.4. *Structure, or Form*

At *PHP* II 8.26-8, Galen turns to Aristotle's observation of νεῦρα as growing from the heart,<sup>43</sup> which he had already discussed in *PHP* I (8.3-15; 10.6-10). He now continues this earlier discussion because Aristotle's observation can also be considered as exemplifying bodily form, one of the attributes distinguished in *PHP* II.

<sup>39</sup> Cf. *MM* X p. 635 K: διοικοῦσι τὸ ζῶον, ὡς ἐν τοῖς περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων ἐπεδείκνυτο, τρεῖς ἑτερογενεῖς ἀλλήλων δυνάμεις, ὥσπερ ἐκ τῆς τινος ἰδίας ἐκάστη παντὶ τῷ σώματι διανενόμεναι ....

<sup>40</sup> Cf. *supra*, p. 11.

<sup>41</sup> Cf. *infra*, pp. 53 ff.

<sup>42</sup> ... ἥτοι περὶ φαινομένων ἐναργῶς ἢ παρακειμένην αἰσθήσει τὴν ἐνδειξιν ἐχόντων.

<sup>43</sup> For Aristotle's views on the heart see Harris (1973) 121 ff., esp. 134, 160.

We may first quote Aristotle's words (PA Γ 4.666b14-16):

The heart also has a large number of nerves (νεύρων), and reasonably so, for movements have their origin there; and they are carried out by pulling and slacking; therefore the heart needs the nerves to serve it and give it strength.

First Galen points to certain useful elements. Aristotle was right to look for the centre of the nerves, motivated by the correct insight that 'service and strength of this sort' is needed. Thus Aristotle is taken to have subscribed to the idea expressed in the major premise of Galen's syllogism[s].<sup>44</sup> However, he limited himself to the observation of a large number of nerves attached to the heart. This observation is inaccurate in itself (8.8),<sup>45</sup> and at any rate does not pertain to something *peculiar* to the heart and so is not sufficient as a token (γνώρισμα)<sup>46</sup> that the heart is the functional centre (ἀρχή) of the nervous system (8.4). He should have determined its 'action and use' (ἐνέργειά τε καὶ χρεία, 8.15), in which, on his own teaching, the 'essence' of the organ under inquiry resides (οὐσία, ὅ τί ποτέ ἐστιν ... τὸ εἶναι, 8.9-10). This can only be definitively established by means of vivisection—i.e. by intercepting nerves in a systematic manner and observing the results.<sup>47</sup> In sum, Aristotle was too quick to conclude from structure to function. His own doctrines might have suggested the correct procedure.

But Galen was not the first to correct Aristotle on this point. He was anticipated by Herophilus, who proposed to speak of 'nerve-like strands' (νευρώδεις διαφύσεις) instead of 'nerves', i.e. 'νεῦρα' (PHPI 10.3-4 = Herophilus T 119), which Aristotle had used in the older sense covering tissues such as sinews, tendons, and ligaments.<sup>48</sup> Obviously Herophilus wished to reserve the term 'νεῦρα' for his new concept of nerves, i.e. for the kind of vessel whose functions he had discovered. It is not certain that Herophilus meant to improve on Aristotle in particular;<sup>49</sup> it may have been Galen who

<sup>44</sup> See *supra*, p. 27.

<sup>45</sup> Cf. Harris (1973) 160-2.

<sup>46</sup> Cf. the same usage at VI 5.4-6, 27-9; 6.55; 6.1; see *infra*, Ch. 3.7.

<sup>47</sup> On function as the object of experimentation cf. also AA IX 1, II 707, referred to by Debru (1994) 1722. Similarly, Erasistratus was mistaken about the exact source of the nerves because he had limited himself to anatomical observation instead of following this up with experiment, see PHP VII 3.

<sup>48</sup> Cf. *infra* p. 189, on Praxagoras

<sup>49</sup> He was well-acquainted with Aristotle's work; see Von Staden (1989) 39, 115 ff.

turned his formula against Aristotle. But the assumption that Herophilus reacted to Aristotle and hence that Galen took his refutation of Aristotle in *PHP* I from Herophilus is certainly supported by a passage from the *On the Formation of Embryos* (*Foet. Form.* IV p. 678.9-679.1 K. = Herophilus T 57):

Something must be added to what was said previously, something which, just like the other *φαινόμενα* derived from dissection, is equally unknown to the noble philosophers; and now is the right moment for me to mention it, having taken my starting point from what Herophilus wrote. For Herophilus does not consider anatomical descriptions fit to produce any general notion (*πρόληψιν*) for the purpose of [formulating] doctrines, just on the basis of saying 'this grows out of (*πεφυκέναι ἐκ*) that', as some people of poor repute do. For he [*scil.* Herophilus] thinks that *the powers that control us are discovered on the basis of other φαινόμενα*, not simply on the basis of the act of looking at the parts (*ἀπλῶς τῆς θέας*) (transl. Von Staden, slightly modified).

Referring to his discussion in *PHP* (679.2 f.), Galen goes on to append a summary of the experiment described at *PHP* II 6 (679.3-680.1), which he presents as the first of three means of determining (*διορισμῶν*)<sup>50</sup> the source of the psychic powers. He next outlines two procedures which are also repeated from *PHP*: the examination of the material substance of the bodily organs under scrutiny (680.1-5)<sup>51</sup> and the comparison of the vessels in terms of big and small in order to determine which kind, the bigger or the smaller, is the *ἀρχή* (681.6-682.1).<sup>52</sup> In fact Galen says that these three procedures represent the gist of his discussion concerned with the soul's parts in *PHP* (679.3-4). One should also note that he regards the first as the best and clearest means of judging the principle of activity (679.19-680.1).

That the first procedure should ideally follow up simple observation<sup>53</sup> and provides the most important proof is consistent with Galen's argument in *PHP* II-III.<sup>54</sup> Moreover, the other procedures are followed in book VI with regard to the liver and the veins,

<sup>50</sup> This term belongs with the method of diaeresis (as does the list of types of attributes at II 4.5-6, quoted *supra*, p. 28); cf. its use at IX 6.1, 8, 27, 57 where Galen is concerned to demonstrate the value of rational methods for ordering experiential data (cf. esp. 6.25).

<sup>51</sup> See *PHP* I 6.16; VII 8.3 ff. VI 8.27 ff.

<sup>52</sup> cf. *PHP* VI 3.32 ff.

<sup>53</sup> Cf. *PHP* III 8.35, on which see *supra*, pp. 15 f.

<sup>54</sup> One should especially note Galen's assessment of the procedures in question at *PHP* VI 3.2 ff. on which see *infra*, p. 56.

where no experimental testing is possible.<sup>55</sup> Herophilus' general point that a purely descriptive anatomy is insufficient for theory formation with respect to function (which it should include)<sup>56</sup> is one of its keynotes, not only as concerns form, or structure, as with Aristotle's observation, but also other attributes.<sup>57</sup>

The reference to Herophilus is interesting indeed. Galen intimates that Herophilus had formulated his rule in connection with the seat of the psychic powers in particular (678.16-7). The narrowly descriptive approach criticized by Herophilus fits Aristotle's (and Praxagoras')<sup>58</sup> use of anatomical observation to determine the function of the heart with regard to the psychic powers.

What we have at *Foot. Form.* 678.9 ff. is not, of course, a verbatim quotation from Herophilus. Yet Galen does refer to Herophilus' writings in connection with the proper sorts of phenomena to be used for determining the seat of the psychic powers (678.12-3). If Herophilus spoke of the need to take account of other phenomena besides simple observation, he surely would have indicated what other phenomena (ἄλλων ... φαινομένων, 678.16) he had in mind; and if he did, Galen would have known which those were. Consequently, Galen is very likely to depend on Herophilean doctrine also in what follows (679.3-682.1), that is to say in his account of the three types of appropriate phenomena. Nothing in the text tells against extending the testimony on Herophilus also to this account.<sup>59</sup> That Galen refers to *PHP* at 679.2-3 does not imply that he stops presenting Herophilean methodology. In other words, he may be taken to mean that the anatomical procedures repeated from *PHP* followed this methodology. Thus Herophilus may have recommended experiments by vivisection and careful scrutiny of the material substance and the form of organs, attaching the greatest value to the first of these procedures. Moreover, it follows from 678.16-7 that Herophilus applied these procedures in deter-

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<sup>55</sup> See further *infra*, pp. 57 ff.

<sup>56</sup> See Von Staden (1989) 135; 115 f. Cf. F. Kudlien, 'Funktionelle und deskriptive Anatomie in der Antike', *Mitt. Inst. Gesch. Med. Pharm.*, Kiel 1963 (2), Dez., 308.

<sup>57</sup> Von Staden (1989) 135 compares Galen's view, as expressed at *PHP* II 5.6, that position—an aspect that the descriptive anatomist would record—is not necessarily a reliable guide to function.

<sup>58</sup> For Praxagoras see *infra*, pp. 83 f., 189.

<sup>59</sup> Von Staden does not raise the question of the extent of the testimony on Herophilus.

mining the location of the psychic functions.<sup>60</sup> As to the first of these, this appears to be borne out by the standard of precision which he achieved, distinguishing, as he did, between the ventricles of the brain and assigning the major controlling functions to the hind part of the brain (T 137, 138).<sup>61</sup> Galen's main contribution to the debate may have been that he improved on the method and technique of the experiments.<sup>62</sup>

The need to follow up anatomical observation with experimental testing also emerges from Galen's discussion of a passage from Chrysippus quoted at *PHP* II 5.69-70 (*SVF* II 898) in connection with the Stoic arguments concerned with spoken language. According to Galen, this passage shows that Chrysippus conceded that it is possible that speech is sent out from the chest and through the windpipe, while the brain initiates motion in those parts through the nerves (73); in other words, the great Stoic himself did not consider the speech argument conclusive after all. The passage in question runs as follows:

But as I said, it is more important for them<sup>63</sup> on all counts, if perhaps this too should be granted that according as they<sup>64</sup> travel about, the initiation (ἀρχήν) comes from the head to the parts mentioned. Let us examine the matter further. Surely the same sort of statement that they might make about speech, that it is carried out from the chest through the windpipe with an initiation of some kind coming from the head, can be made if the governing part is in the heart but the beginning of its movements (τῆς ... τῶν κινήσεων ἀρχῆς) is from the head (transl. De Lacy's, slightly modified).

This is a difficult passage and the translation is debatable on certain points. Nonetheless its gist seems clear: even if it is granted that the brain is the source of the nervous system, this still leaves

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<sup>60</sup> At *Foet. Form.* IV p.679.4 ff. K. the first procedure stipulated concerns the heart and the brain; the second the brain/nerves and the heart/arteries and liver/veins; and the third the liver/veins. For the second procedure as applied to the liver see *PHP* VI 8.27 ff. Cf. *infra*, p. 59. For Herophilus' concern with the ἀρχή of the veins see also *PHP* VI 5.22 (T 115 Von St.). Galen says that Herophilus was at a loss concerning the starting-point he looked for, yet seems to suggest that he took his start from the liver in his account of the venous system.

<sup>61</sup> As is suggested by Von Staden (1989) 247 f.

<sup>62</sup> Cf. the assessments by Mansfeld (1992) n.78 (p.137); Debru (1994) 1733.

<sup>63</sup> This renders αὐτοῖς (69, p. 140.26). I here adopt De Lacy's translation with some hesitation. If accepted, it must refer, as De Lacy *ad loc.* suggests, to those who hold that the governing part is in the head.

<sup>64</sup> This must refer to the nerves, or what passes through them.

open the possibility that the intellect resides in the heart and the brain functions as some sort of auxiliary centre which receives stimuli from the heart and passes them on to all the parts of the body. Interestingly, Chrysippus models this line of reasoning on what he takes to be an analogous assumption entertained by his adversaries. This is the same explanation of the mechanism of speech as is demonstrated by Galen, namely that speech while coming from the chest is directed from the head by means of the nerves. Galen's relevant experiments, then, may have been anticipated by the anonymous persons Chrysippus is referring to.<sup>65</sup>

A little further on (5.94 f.) Galen uses this quotation as a stepping-stone to introduce another experimental report (II 6). The point raised by Chrysippus—viz. whether the brain is in any relevant sense dependent on the heart—can only be settled through experimental means. Galen turns this into some sort of backhanded compliment by intimating that Chrysippus, unlike Aristotle, had actually recognized the need for anatomical experiment but failed to put this rare flash of insight into practice (II 5.94 ff. 6.1, 7.2). So this task falls to Galen (cf. 7.1-2).

As with Aristotle's observation of nerves on the heart, mere observation is insufficient. At the same time, the structural connections suggest which experimental interventions are to be made. Therefore one should first carefully observe the number and nature of the vessels which connect the heart and the brain (*PHP* II 6.3). Galen next (6.5-8) stipulates how the experiment is to be conducted: each of the three kinds of vessel connecting the two organs—nerves, carotid arteries and jugular veins—should be separately cut or intercepted by ligatures.<sup>66</sup> If this is done in a technically accurate fashion, the resulting observations show no impairment of any of the relevant functions, viz. pulsative motion and voluntary movement cum perception. Galen adds the observation that the arteries keep pulsating under the ligatures, i.e. in the parts continuous with the heart, whereas the parts above the ligatures become entirely pulseless (6.10). He concludes that the heart and the brain are independent of each another in regard to these functions (6.9).

<sup>65</sup> Cf. Solmsen (1961a) 192, 195, who takes our passage to allude to the Alexandrian discoverers of the nervous system.

<sup>66</sup> Remarkably enough, Galen omits any mention of the vertebral arteries, to which he does refer on other occasions, see e.g. *De usu pulsuum* 2, pp. 198-202 Furley and Wilkie, where a similar experiment is recorded; cf. Furley and Wilkie (1984) 48-51.

### 3.5. *The Heart and the Passions*

In the section of *PHP* II marked off by the editors as chapter 7, Galen raises the subject of Chrysippus' self-contradictions. He was ambivalent about the Stoic speech argument (see above). Moreover, he said contradictory things about the perception of the passions in the heart. To substantiate this criticism, Galen quotes two proof-texts (6.6, 6.8), the first of which states that we have a clear perception of the regent part, whereas the second refers to people in general as perceiving the 'passions affecting the intellect' happening to them in the region of the chest.<sup>67</sup>

Galen argues that Chrysippus' initial denial of perception is true, just as one of the horns of the earlier self-contradiction concerned with the argument from speech<sup>68</sup> was accepted; in either case, Galen chooses that statement which 'comes closer to the truth' (τὸν ἀληθέστερον ... λόγον, 7.14-5).<sup>69</sup> He appends a few critical observations on the appeal to the perception of the passions in the heart (7.16-9). First, such physical effects as are pointed out by Chrysippus are not proper to the heart; there are other parts of the body which, during certain passions, exhibit similar alterations.<sup>70</sup> Here, then, we have another example of Galen's attention to peculiarities of the heart as of special relevance to his inquiry. Accordingly, Galen at II 8.18 calls the palpitation of the heart in fear an 'accident' (ἀπὸ συμβεβηκότος ἐπιχειρεῖται) and Chrysippus' argument which is based on it 'unscientific'.

Secondly, Galen objects that even if the heart departs further from its natural state (ἐξισταμένη τοῦ κατὰ φύσιν)<sup>71</sup> at the moment of

<sup>67</sup> These passages are quoted and discussed more fully *infra*, pp. 147 ff

<sup>68</sup> See *PHP* II 5.64-67; 7.3; 5.74. On this alleged self-contradiction see *supra*, p. 51 ff.

<sup>69</sup> On this motif see further Tieleman, *Galen and Chrysippus On the Passions*, forthcoming.

<sup>70</sup> On this counter-argument cf. *infra*, pp. 168 f., 253 f.

<sup>71</sup> For departure from natural activity as an indication see also *PHP* VI 3.4 (... ἐξιστάντα τὴν καρδίαν ... τῆς κατὰ φύσιν ἐνέργειας). Apparently, Galen takes the relation between the physical effects and the presence of soul for granted, cf. *PHP* VII 3.2. For a more physiological perspective see *ibid.* VI 8.39, where Galen says that the heart, being the source of the pneuma-like and boiling blood (cf. Plato, *Ti.* 70a-b), indicates (ἐνδείκνυται) that the θυμοειδές is there; cf. *Foet. Form.* IV p. 671 K. For the relation of boiling to anger see also VI 8.74, with Arist. *De an.* A 1.403a28 ff. Likewise Galen readily identifies the liver's nutritive function with the desires and related emotions originating from it; on this point Hankinson cf. (1991a) 229 f.

*PHP* VI 1.4-27 is relevant in this connection. Here Galen distinguishes

passion than any other organ (that is to say, if we are dealing with a peculiarity after all), this will not indicate (ἐνδείξεται) that reason is located in the heart. Rather it indicates the spirited and desiderative (!) parts (7.17) and so really tells in favour of Plato's view. And furthermore, it is unwarranted to infer from the presence of the passions in the heart that of reason (Chrysippus' unproven assumption).<sup>72</sup> No special motion (κίνησις again) of the heart is in evidence in the acts of thinking, learning or teaching. Here Galen overplays his hand, since he cannot relate these cognitive functions to any motions of the brain either.

However, Galen hesitates. The traditional argument from the passions appeals to the common and apparently indisputable experience that passions like anger and fear are related to the pulse.<sup>73</sup> As we have seen, Galen can scarcely resist the opportunity to appropriate it on behalf of Plato. In this context, we still seem to be dealing with a dialectical ploy on Galen's part, and we need not assume a self-contradiction with his insistence on the unscientific character of the argument (cf. 8.19). At the beginning of Bk. III, however, he cites further passages of Chrysippus concerned with the perception of the passions (*PHP* III 1.23-5 = *SVF* II 886), and in particular θύμος (*ibid.* 1.25).<sup>74</sup> He now argues that Chrysippus

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between two senses of the pair of opposites ἐνεργεῖα-πάθος: a) active motion coming from the thing itself versus motion coming from some other thing; b) natural versus unnatural motion. Cf. De Lacy *ad PHP* 360.22-3 and 362.4-5. This is illustrated by the pulse and palpitation of the heart and by passions, such as desire and anger, in a way consistent with *PHP* II 7.17 and VI 3.4. What we have at VI 1 may be a contribution to a contemporary Peripatetic discussion. This may concern the exegesis of Aristotelian passages; cf. *Met.* Δ 21.1022b19-20 and *Top.* Z 6.145a3 ff., where Aristotle, in his discussion of definition, calls it a mistake to take a πάθος as a differentia on the grounds that every πάθος, when intensified, departs from the essence (ἐξίστησι τῆς οὐσίας; cf. *PHP* II 7.17, VI 3.4), for πάθος implies alteration (ἀλλοιοῦται, ἀλλοιούμεθα; cf. *PHP* II 7.16 ἀλλοιουμένου said of the body during the πάθη). Galen, by contrast, takes *departure* from the natural movement, which counts as an ἐνεργεῖα of the heart (see the conceptual analysis referred to above), as relevant to the heart's *essence*, taking it to indicate the spirited part as enclosed by the heart. But the difference from Aristotle in respect of the relation of πάθος to essence may only be apparent; the passage from the *Top.* pertains to πάθος in the first sense distinguished at *Met.* Δ 21.1022b15 ff. (a quality in virtue of which alteration is possible), whereas πάθος in the Galenic passages conforms with Aristotle's third sense of harmful alterations and movements (*ibid.* 19 ff.).

<sup>72</sup> On which see *supra*, p. 11.

<sup>73</sup> Cf. *Praes. puls.* IX pp. 421-30 K. See further *infra*, pp. 168 ff.

<sup>74</sup> Quoted *infra*, p. 157; cf. p. 148.



demonstrates (δείκνυται) the spirited part to be in the chest. There are no phenomena other than those mentioned by Chrysippus which give a 'clearer proof' (ἐναργέστερον ... ἀποδείξειεν) that θύμος arises from the heart (*ibid.* 1.28). He repeats that Chrysippus supports Plato and quotes *Ti.* 70a7-b8 and c1-5 to illustrate this point. But he is no longer just turning the tables on Chrysippus. Galen is actually appropriating the argument at issue, using language which shows that he is taking its epistemological status into account and considers it to be scientific after all. Likewise, at *PHP* VI 3.4, looking back upon his argument concerned with the brain and the heart in Bks. II-III, he not only provides a summary of the experiment recorded at II 6, but also says: '... it was clearly evident (προφανῶς ... ἐφαίνετο) that the affections of the soul that occur in anger and fear cause the heart to depart from its natural action.' The very wording here echoes II 7.17, where he takes an opposite stance. In addition, at VIII 1.23, he puts the argument concerned with the passions as a demonstrative proof on a par with that concerned with the rational part (*ibid.* 22):<sup>75</sup>

Where the affections of the soul more visibly move the parts of the body, there is the affective part (παθητικόν)<sup>76</sup> of the soul. The heart is observed to undergo a great change of motion in anger and fear. Therefore the affective part of the soul is in the heart (translation De Lacy).

### 3.6. *Excursus: The Third Part of the Soul (PHP VI)*

In *PHP* I-III Galen proves to his own satisfaction that the rational and spirited parts of the soul reside in the brain and heart respectively. In *PHP* book VI 3 ff. he concludes his demonstration of the Platonic trilocution with a series of arguments designed to show that the liver is the seat of desire, or the soul's 'appetitive part' (ἐπιθυμητικὸν μέρος).<sup>77</sup> Since books I-III and VI belong together, it may be instructive to take stock of Galen's method in the sixth book and compare our findings with the picture emerging from our

<sup>75</sup> For which see *supra*, p. 27.

<sup>76</sup> This seems odd but the passions mentioned leave no room for doubt that the θυμοειδές is mentioned; cf. *ibid.* 26 ff. where Galen goes on to summarize his proof concerned with the Platonic appetitive part. The term παθητικόν may reflect its use by Posidonius, cf. e.g. Posid. *ap.* Gal. *PHP* V 6.31, 33, 36 (Fr. 166 E.-K.)

<sup>77</sup> Strictly, Galen's view that the liver is the seat of desire is based on a distortion of the Platonic text, see *supra*, pp. xxx f.

survey of the first three books. Interestingly, he draws a comparison between his procedure in books I-III on the one hand and book VI on the other himself. In his preface (VI 3.1-6), he says that the proof concerned with the third part will not be from such clear evidence (p.372.20: οὐκ ἐξ ὁμοίως ἐναργῶν)<sup>78</sup> as those concerned with the two other parts, because its premises are not taken directly from the very nature (φύσεως) of the thing under investigation (viz. the liver) but rather from 'attributes proper to it', i.e. its properties (p.372.21-2: ἐκ τῶν τούτῳ συμβεβηκότων ἰδίᾳ).<sup>79</sup> The reason is that in the case of the liver it is not feasible to conduct an anatomical experiment which corresponds to that recorded at *PHP* II 6, whereby the nerves and arteries are cut, or blocked with ligatures, so as to produce phenomena that indicate the brain as the principle of perception and volition and the heart as that of the pulse.<sup>80</sup> Binding the veins and other procedures do not reveal the liver to be a 'principle of obvious motion' (VI 5-6).<sup>81</sup> Nor can we perceive any disturbances of the liver such as those of the heart when certain passions occur (*ibid.* 4).<sup>82</sup> When one damages the liver, there is a much less direct and obvious relation between intervention and effect than in the case of the brain (*ibid.* 5).<sup>83</sup> Galen indicates no other differences from the method in book VI, so we may take him to imply that the methodology underlying the books concerned is essentially the same in all other respects.

Having ascertained that, despite terminological differences, the notion of the desiderative power is shared by all philosophers (*ibid.* 3.7),<sup>84</sup> Galen continues: 'We shall begin with things which are more evident (ἐναργεστέρων), so that by training (γυμνασθέντες) in them we may more easily discover (ἐξεύρομεν) what is more obscure, and so that we may have a good supply (εὐπορήσομεν) of premises for dealing with it (*ibid.* 3.8, p.374.23-5).' This announcement has a familiar ring.<sup>85</sup> Galen explicitly associates these

<sup>78</sup> On clarity in relation to experimental testing see *supra*, pp. 35 f.

<sup>79</sup> For the phrase cf. Arist. *De an.* A 1.402a15 f.

<sup>80</sup> On these experiments see *supra*, pp. 49 ff. esp. 52; xiii f.

<sup>81</sup> p. 374.1 ἐναργοὺς ... κινήσεως ἀρχή. On this concept see *supra*, p. 46.

<sup>82</sup> See *supra*, Ch. 3.5.

<sup>83</sup> Cf. *Foet. Form.* IV 678.9 ff. K. on which see *supra*, pp. 49 ff.

<sup>84</sup> On this preliminary procedure, see *supra*, pp. 24 f.

<sup>85</sup> Arist. *Top.* A 2.101a25 lists γυμνασία as one of the three main purposes of dialectic; cf. Θ 5.159a25 ff. For the idea expressed by εὐπορήσομεν see e.g. *ibid.* 13.105a20 ff. Cf. *APr.* A 27.43a20, 43b10; 30.46a6 f., Alex. *In Arist. An. Pr.* p.331.5 Wallies.

notions elsewhere with dialectical as distinguished from demonstrative argument (*PHP* II 3.10; 8.3). Dialectical premises are so numerous because they are derived from all features and attributes (II 8.3).<sup>86</sup> So although Galen does not present a list of general attributes like that at II 4.6,<sup>87</sup> it is clear that his procedure is the same. His emphasis on the 'more evident' character of the starting-points recalls the same characterization in book II (e.g. 8.51), as well as the essence/attributes distinction. Here too the essence of the liver is unclear, whereas its attributes are evident.

Given this principle of method, one should start from the veins and investigate whether or not the liver is their source (ἀρχή) in its *structural* sense. Galen draws an analogy with plants which also involves a comparison between a plant's roots and the veins. Since, as is generally believed (cf. 3.7), plants possess only the desiderative and nutritive power, they provide clearer evidence (ἐναργέστερα τεκμήρια) of the part that is the source thereof than animals do. Thus the first section of Galen's demonstration is an extended account of the structure of plants, comparing their roots and base to the veins and liver in animals (3.11-42). This line of approach conforms with the role accorded by Aristotle to the investigation of similarity (ἡ τοῦ ὁμοίου σκέψις) as one of four means of ascertaining a large supply of syllogisms.<sup>88</sup>

In ch. 4, Galen refutes the Peripatetic view that the liver furnishes the material, i.e. the blood, to the heart whereas the heart controls the function of nourishment.<sup>89</sup> In ch.5, he returns to constructive argument, presenting a comparative anatomical description of the structure of the venous and the arterial systems. His point here is that all the veins start from the liver, not from the right ventricle of the heart, which means that this is an attribute *proper* to the liver. We should note that he calls the fact that all the vessels are continuous with the liver an important token (γνώρισμα) on which an inference or indication (ἐνδειξιν) may be based (5.5).<sup>90</sup> We should compare Galen's attempts to establish the

<sup>86</sup> Cf. II 4.5 and *supra*, p. 28.

<sup>87</sup> See *supra*, p. 28.

<sup>88</sup> *Top.* A 13.105a20 ff. cf. A 17.108a7 ff. Cf. Cic. *Top.* 15, 41 f. Alex. *In Arist. Top.* p.117.4 ff. Wallies; Boethius, *Top. Diff.* PL 1090 CD (= Stump p.54 f.). On similarity as a topic see further *infra*, p. 120.

<sup>89</sup> Cf. *infra*, pp. 74 ff.

<sup>90</sup> Likewise Aristotle's observation of 'νεῦρα' being attached to the heart (see I 8.3 ff. 10.6 ff. II 8.27-8) refers to an attribute in question which is not

continuity of the nerves and arteries with their respective sources in the context of the attribute 'form' or 'structure' (I 6-7).

At *PHP* VI 5.21-34 Galen goes on to consider the liver from a different angle, viz. as 'beginning of instruction' (τὴν τῆς διδασκαλίας ἀρχήν, cf. 26, p.392.30; 27, p.392.35): all anatomists, when writing about the veins, take the liver as their starting-point, thereby betraying, against their will, the truth of the matter, for 'if a person teaches correctly he will start from the natural beginning' (τῆς κατὰ φύσιν ἀρχῆς, 34, p.394.27-8). This fact is called a token (γνώρισμα, 28, p.394.3) as well.

Galen then proceeds to a critique of Erasistratus and his followers, who had claimed that the heart is central to the production, or at least the distribution, of the blood (ch. 6). This leads to a consideration of embryological facts, designed to show that the liver is also the beginning, or principle of generation (ἀρχὴ γενέσεως), of the veins (6.20 ff.). His argument here corresponds to *PHP* II 8.21 ff., where he discusses the familiar argument, propounded by Aristotle and Chrysippus, that the heart is the centre of command because it is the first organ to be formed.<sup>91</sup> In Bk. II Galen avoids contesting the temporal priority of the heart as such but declares it irrelevant to the subject under investigation. However, in Bk. VI he shows no qualms about employing the same argument in regard to the liver. In other words, he assumes that its role as the generating principle vis-à-vis the veins indicates that it controls the *functions* operating through these vessels also in the mature animal.<sup>92</sup>

His earlier dismissal of this type of argument implied its relegation to the 'dialectical', i.e. unscientific or undemonstrative, class. But he clearly does not take this view in our present passage, where he apparently regards the role of generative principle of the veins as one of its properties. We cannot, then, solve the apparent inconsistency by positing a difference in status. In the present

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*proper* and therefore provides no *sufficient* token (I 8.4, p.92.9-10 ἱκανὸν ... γνώρισμα) as to its essence; see further *supra*, p. 48.

<sup>91</sup> See *supra*, Ch.3.3.

<sup>92</sup> Cf. *Foet. Form.* IV 680.18 ff., where, in a context largely based on *PHP* VI (see *supra*, pp.49 ff.), Galen says that anatomists have reasonably inquired into the 'principle of generation' of the *vena cava*. However, he goes on to repeat the point made at *PHP* II 8.21 ff. that even if the liver was established as the principle in this sense, this would not yield certainty on its being the 'principle of government' in mature animals. Cf. *ibid.* 674 ff. 681.

context the argument has not a merely dialectical and auxiliary status. One may compare Galen's vacillation with regard to the perception of passions in the heart (II 7, III 1). Here too an initial rejection on methodological grounds is followed by an appropriation of the argument as demonstrative. If Galen is inconsistent in his evaluation of the appeal to the notion that the liver (or the heart) is the 'principle of generation', the difference between the contexts involved, one polemical, the other constructive, may be at issue. After all, there are more examples of Galen requiring rigorous methodological standards from his opponents which he cheerfully flouts or ignores himself.<sup>93</sup> In addition, we must also note that elsewhere he adopts an ambivalent attitude towards the same argument.<sup>94</sup>

In ch.8,<sup>95</sup> Galen recapitulates the various ways in which the liver can be said to be principle/beginning (ἀρχή) of the veins (1-5). The facts in question concern generation, distribution of matter and instruction (6-7). Galen concludes that the liver is the principle (ἀρχή) *by nature* and in *every* respect (7).<sup>96</sup> The reference to nature here, or rather Nature, is crucial. In the absence of the clearest type of evidence, viz. that provided by anatomical experiment, it is understandable that Galen resorts to the teleological justification of the indicative value attached to properties. In Bks. I-III, where experimental confirmation as to function is available, Galen has much less need to invoke Nature's design for relating properties to essence. I shall return to this aspect in due course (§ 7).

I now point briefly to some further points of contact between Bk. VI on the one hand and I-III on the other. At VI 8.10-26, Galen again argues on the basis of 'similarity' (see above), comparing the structure and proper (10, p.410.4 οἰκείας) material substance of the liver with the blood and also referring to their colour (27-35).<sup>97</sup> At 27 he relates the liver's 'proper body' (ἴδιον σῶμα) to its nature (φύσιν) and activity (ἐνέργεια), viz. that of processing the blood. One should note that Galen's argument here concerns the liver's form

<sup>93</sup> Cf. e.g. *supra*, p. 54.

<sup>94</sup> See *Foet. form* IV 674 ff. 681.

<sup>95</sup> Ch. 7 is concerned with the pulse and the arteries and need not concern us here.

<sup>96</sup> Cf. the parallel inventory at *PHP* VI 6.20 ff. Here Galen claims that the heart cannot be ἀρχή in the senses distinguished at 7.6.

<sup>97</sup> For this type of argument cf. *Foet. Form.* IV 680.1 ff., on which see *supra*, p. 49.

(ιδέα, 29), which had been one of the properties (ὑπάρχοντα) used in ‘merely’ dialectical arguments such as Aristotle’s discussed in Bks. I-II.<sup>98</sup>

From 8.42 onward, Galen invokes the testimony of certain authorities and, needless to say, of Plato and Hippocrates in particular.<sup>99</sup> This part aims to show that Hippocrates and Plato, each in their own way, had anticipated the true account. Galen concludes his demonstration (8.77) with a quotation from *Odyssea*, λ 576-581, depicting Tityos’ crime and punishment, which illustrates Galen’s view of the liver’s function.<sup>100</sup> This only comes after the demonstration proper has been completed, in agreement with what Galen prescribes elsewhere (V 7.83-85).<sup>101</sup> There is an obvious link with his critique of Chrysippus’ use of poetry in Bk. III. Right until the end, Galen intends to provide a model discussion with regard to all available sources of arguments.

As Galen himself indicates and has been borne out by our survey, the demonstration in book VI is based on the same methodology as underlies the first three books. Book VI confirms the pivotal role played by the concept of ‘what is proper’ in the selection of relevant attributes. Of prime importance are those arguments which point to the structural continuity of a specific type of vessel with a specific organ. It is to this property and others that the procedure of selection leads up. As such, the properties justify and guide the next stage of an ideal demonstration of the function of an organ, viz. that of experimental confirmation, even though, as we have seen, this is omitted here for special reasons.

### 3.7. *Essence, Property and Sign*

Our brief foray into book VI has confirmed that the concepts of ‘the proper’ (τὸ ἴδιον) and sign (σημεῖον) play a pivotal role in Galen’s argument. In the following pages I shall conclude my survey by

<sup>98</sup> See *supra*, Ch. 3.4.

<sup>99</sup> Cf. e.g. the procedure in *QAM* where Galen first expounds an argument on his own behalf and in the second half of the tract (chs. VI-IX) cites passages from Plato, Aristotle and Hippocrates as proof-texts showing that they had anticipated Galen’s views argued in the first half. It is pertinent here to recall Galen’s views on the value of authority, see *supra*, pp. xxi f.

<sup>100</sup> Cf. *Loc. aff.* VIII p. 160 K.

<sup>101</sup> Galen’s use of these lines does not seem to satisfy his other requirement at *PHP* V 7.83-85, namely, that a quotation should pertain to something obvious from sense-perception, or directly inferable from it; see *supra*, p. 17.

dwelling a bit further on their function and status. If, as Galen firmly believed, Nature does nothing in vain, the qualities which are unique to organs must pertain to their essence.<sup>102</sup> Thus we find him frequently associating lists of attributes (συμβεβήκοτα, or ὑπάρχοντα), similar to that at II 4.6, with the notion of Nature's design or the final cause.<sup>103</sup> This notion ultimately justifies the use of properties as heuristic signs with regard to the essence or function of organs.<sup>104</sup> It appears from the epistemological proviso made at *PHP* VI 3.2 that essence is revealed in the clearest possible manner only when the selection of properties is followed up by experimental demonstration.<sup>105</sup> This is also the point of the passage from *Foet. Form.* cited above.<sup>106</sup> Nonetheless, the value attached to properties is illustrated by the fact that Galen holds that there are organs whose function can be established on the basis of outward features alone. Here vivisection experiments are superfluous. Examples of organs of this category are the tongue and the penis-cum-testicles.<sup>107</sup>

All this goes of course back to Aristotle. The notion of property encompasses both essence and what is not essence. Yet Aristotle decides to call what indicates essence 'definition' and to reserve the term 'property' for the second species (*Top.* A 4.101b19-24).<sup>108</sup> Property in this sense is related to essence without being included in its formula or definition (cf. the standard example 'being grammatical' as proper to man). As such, the concept is a much-used tool of Aristotelian methodology.<sup>109</sup> This function rests on the intermediate status of property between accident and essence. In the

<sup>102</sup> On Galen's teleology in general see also Hankinson (1988) and (1989).

<sup>103</sup> Cf. *UP* VI 4, 7, pp. 308, 315 f. Helmreich and next n.; *Uter. diss.* 3.4, p.38 Nickel; *Nat. Fac.* II 175 K. (= *SM* III 227.19 ff. Helmr.); *Hipp. Epid.* VI, XVIIb 185 K.

<sup>104</sup> Cf. the procedure stipulated at *UP* I 9, vol. 1, p.19 Helmreich: one should examine first the outward (i.e. as opposed to essential) activity, then the quality on the level of organs and finally that on the level of their parts before one can proceed to a judgement concerning use.

<sup>105</sup> See *supra*, p. 56.

<sup>106</sup> See *supra*, p. 49.

<sup>107</sup> *AA* X 3, p. 41, XII 7, pp. 123 ff. Duckworth; cf. I. Ormos, 'Bemerkungen zur Galens Schrift "Über die Sektion der Lebewesen"', in Kollesch and Nickel (1993) 171.

<sup>108</sup> Cf. Verbeke (1968) 259 f., J. Barnes, 'Property in Aristotle's Topics', *AGPh* 52 (1970) 136 ff.

<sup>109</sup> See Verbeke (1968) 257 ff.

sensible world, Aristotle distinguishes between what is contingent or changeable and what is necessary, and further, among necessary things, between what is essentially necessary and what is derivatively necessary, calling the latter 'property'.<sup>110</sup> Property and essence further differ with regard to knowledge, or intelligibility. Properties are 'better known', or 'prior', to us, whereas essence is 'better known', or 'prior', by nature.<sup>111</sup> Hence Aristotle insists that the given property should be better known than the subject (*Top.* E 1.129b1-5), saying that the property serves to increase our knowledge of the subject (*ibid.* 129b7-9, 130a4, 131a1).<sup>112</sup>

Apart from positively increasing knowledge, the concept of property may also serve as a tool for refutation. According to Aristotle, what is said about all other predicables except definition, i.e. property, genus, and accident, can also be applied to definitions. In the case of property, this means that if something is shown not to belong (ὑπάρχει) to a given subject only, it not only is not proper to it, but by the same token is proven not to be a definition either (*Top.* A 6.102b27 ff.).

Galen too frequently contests that a particular feature of the heart, or brain, is proper to this organ.<sup>113</sup> In fact his inquiry may be viewed as aimed at 'definition'. And essential definition, for Galen, entails a scientific account, or represents a complete scientific account.<sup>114</sup> In this connection it is interesting to compare the role of proper attributes (συμβεβηκότα ἰδίως or ἰδίᾳ) in the account of definition (ὁρισμός, ὅρος) at *Diff. Puls.* VIII 2, 704.5-706.3.<sup>115</sup> Here Galen distinguishes between two main kinds of definition, one expressing the conception (ἔννοια) current among speakers of the same language, and the other expressing the essence, or being (οὐσία), of the thing in question. This latter conforms to, but is not identical, with the former. Now Galen recommends that one

<sup>110</sup> See Verbeke (1968) 259 ff. esp. 265 f.

<sup>111</sup> Cf. *APo.* A 2.71b33 ff. *Met.* Δ 11.1018b30 ff. M 2.1077b1 ff. with Verbeke (1968) 265 f.

<sup>112</sup> On the distinction concerned in connection with phenomena see *supra*, pp. 21 ff.

<sup>113</sup> Cf. *supra*, pp. 48, 53.

<sup>114</sup> Cf. Barnes (1991) 75.

<sup>115</sup> This account is based on Galen's commentary on Aristotle's *Posterior Analytics*; Galen refers to the third and fourth books of this commentary for a fuller treatment of this subject (p.705.18 ff. K.; Aristotle is referred to at p.705.12 K.). Moraux (1984) 716 n.136 suggests *APo.* B 10 as Galen's source.



should not limit oneself to definitions of these two kinds. He explains how to obtain the formula of a thing's essence by laying down 'three or four' different, but related, definitions. One should start from the purely verbal definition.<sup>116</sup> The next definition departs a little from the mere conception and comes a little closer to being. Thus each of these steps involves attributes that are closer to essence until, in the fourth, the definition of 'being' (οὐσία) is reached.

Importantly, Galen associates the first step with the συμβεβηκότα ἰδίως αὐτῷ—for it is attributes of this kind which are expressed in the formula of the general conception (705.16 f.). Moreover, whereas each definition in the sequence should be demonstrably based on the former, the first definition is guaranteed by itself because it expresses things that appear evidently (φαινομένων ἐναργῶς πραγμάτων, p.705.10 f. K.).

It should also be noted that Galen at *Diff. Puls.* VIII p. 708 K. (*SVF* II 229) aligns the first step, or steps, of this procedure with the Stoic 'outline account' (ὑπογραφή) which expresses what all people know and from which one should start. Furthermore, Galen's stress on the concept of property in the context of a procedure of conceptual articulation may also have been stimulated by the Stoic definition of definition as 'the account of what is proper' (*SVF* II 226-228).<sup>117</sup>

Properties, when recognized as such, are important as 'signs' of the nature of the subject under investigation, here the liver. In book I Galen implies that the structure of the nerves can be a 'token' (γνώρισμα).<sup>118</sup> And the heart's property of being the first and the last organ in an animal to move (κινεῖσθαι, cf. *PHP* II 4.6 κίνησις) is said to 'provide an indication' (ἐνδείκνυται) that the heart is the ἀρχή of its pulsating motion. In fact, in *PHP* VI he sometimes

<sup>116</sup> Cf. *MM* I 5, 40.2-42.17, where Galen argues that, although one should start with the received conception (ἐννοια ὁμολογηθεῖσα), definition is not derived from the opinions of people in general (ἐκ τῶν πολλῶν δοκούντων) but from demonstrative premises (ἐκ τῶν ἐπιστημονικῶν λημμάτων) according to a procedure explained in the *On Demonstration*. This passage recalls Galen's modification of Aristotle's view, namely his substitution of observable attributes for the ἐνδοξα as the material for dialectical argument; see *supra*, pp. 21 ff.

<sup>117</sup> Cf. Rieth (1933) 51-54. Galen knew the Stoic doctrine concerning definition, see *Diff. Puls.* IV 2, VIII, p.708 K. (*SVF* II 229); cf. *Adv. Lycum* 3, XVIII A, p.209 K. (*SVF* 230).

<sup>118</sup> Cf. VII 8.7 ἐνδειξαμένης τῆς κατάσκευῆς αὐτῶν [scil. νεύρων]; and see further Ch. 3.4.

speaks as if he is primarily concerned to find signs, or indications (γνώρισμα; cf. 6.1, 55) which are certain or clear.

The relation of sign to 'proper attributes' or 'properties' can be paralleled from *Ars med.* I p. 314-5 K. Here, in a therapeutic context, Galen<sup>119</sup> is concerned with 'signs' (σημεία), of which the 'diagnostic' ones (διαγνωστικά) pertain to *present* diseases (p. 313.5-10). Diagnoses should be made 'on the basis of the properties pertaining to the formula of their [scil. the bodies'] being and from the activities and symptoms necessarily supervening on these, which<sup>120</sup> are the things which we also call proper attributes (συμβεβηκότα ιδίως)' (314.12-5).<sup>121</sup> The brief list of properties on the organic level Galen gives further on (315.2-4) recalls the one at *PHP* II 4.6, with which it shares three items: size (πηλικότης), form (διάπλασις), position (θέσις), and many others in Galen's work (see above); 'activities' (ἐνεργεῖαι, p.314.14 K.) may be related to 'motion' (κίνησις, *PHP* II 4.6), which is at issue at *PHP* II 8.23 f.<sup>122</sup>

No doubt Galen's procedure involves the technical concept of the 'indicative sign' (σημείον ἐνδεικτικόν) or 'indication' (ἐνδειξις).<sup>123</sup> Selection is part and parcel of this concept, for Galen, as was characteristic of rationalist physicians, does not observe all possible signs but selects those that are indicative of the 'cause' (αἰτία) or 'nature' (φύσις) or 'essence' (οὐσία) of the thing involved. Thus Galen on occasion opposes signs to 'mere' phenomena in language strongly reminiscent of his division of attributes into scientific and dialectical premises in the introductory section of *PHP* II.<sup>124</sup> Indeed indication (ἐνδειξις) was considered the hallmark of the rational method.<sup>125</sup> Indication in this sense is found at *PHP* VI 5.5, where it is differentiated from the token (γνώρισμα), as that from which it is

<sup>119</sup> If it is Galen; the tract's authenticity has recently been questioned, see J. Kollesch, 'Anschauungen von den *archai* in der *Ars Medica* und Seelenlehre Galens', in Vegetti and Manuli (1988) 215-29

<sup>120</sup> I.e. the properties and the activities and symptoms.

<sup>121</sup> τὰς διαγνώσεις δὲ αὐτῶν ἀπὸ τε τῶν ὑπαρχόντων κατὰ τὸν τῆς οὐσίας αὐτῶν λόγον χρὴ ποιεῖσθαι, καὶ τῶν ἐξ ἀνάγκης τούτοις ἐπομένων ἐνεργειῶν τε καὶ συμπτωμάτων, ἃ δὴ καὶ συμβεβηκότα καλοῦμεν ἰδίως.

<sup>122</sup> Cf. *Foet. Form.* IV p. 679.19 f. K and *supra* p. 28 n. 86.

<sup>123</sup> See the definition at *Inst. Log.* XI p.24.14 ff. Kalbfleisch: ἐνδειξιν ... καλοῦσι τὴν ἐκ τῆς τοῦ πράγματος φύσεως εὐρεσιν τοῦ ζητουμένου κατ' ἀκολουθίαν τῶν ἐναργῶς φαινομένων. (In the context this is contrasted with 'proof', ἀπόδειξις.). Cf. also *MM* X, p.126 f. K. where it is described as an ἔμφασιν τῆς ἀκολουθίας.

<sup>124</sup> *MM* X, pp.244.10, 101.12 f. 104.12 f. K. *Epid.* *CMG* V 10,2,2, p.14.19 Wenkebach; cf. Kudlien (1991) 105 f. with further references.

<sup>125</sup> See *MM* X p. 29 K. with Frede (1981) 75.

derived. Here the term indicates the mental act, i.e. the inference, whereby the underlying cause is grasped.<sup>126</sup>

'Indication' has the specific and technical connotation of prompting, or justifying, a particular course of action on the part of the physician.<sup>127</sup> In therapeutical contexts, the action taken will naturally be aimed against a particular disease. In contexts where the pursuit of knowledge, not the detection of diseases, is at issue, the course of action indicated, I would suggest, is the scientific test and demonstration by experimental means.

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<sup>126</sup> Cf. *MM* X 336 with Kudlien (1991) 104.

<sup>127</sup> Cf. Kudlien (1991) 105.

## CHAPTER FOUR

### DIGESTION AND RESPIRATION DIOGENES OF BABYLON AND OTHERS (*PHP* II 8.29-51)

#### 4.1. *Introduction*

The last section of *PHP* II (8.29-51) deals with a group of arguments which infer the seat of the intellect from physiological theories on digestion and respiration, processes which were often linked with each other. These arguments, Galen says, were advanced by 'by almost everyone' who advocated the cardiocentric position (29). Most notable are two syllogisms of the fifth Stoic scholarch Diogenes of Babylon (c. 240-150 BCE),<sup>1</sup> quoted verbatim at *PHP* II 8.40 and 44 (*SVF* III Diogenes fr. 30).<sup>2</sup> We need not doubt that these fragments derive from Diogenes' tract *On the Regent Part of the Soul*, from which Galen had earlier presented a long excerpt, containing both Zeno's celebrated speech argument as cited by Diogenes as well as the latter's more elaborate version thereof (*PHP* II 4.7-14 = *SVF* III Diog. fr. 29). The two arguments by Diogenes presented at *PHP* II 8.40 and 44 were also designed to support the cardiocentric position. Diogenes, then, appears to have written a kind of sequel to the demonstration offered by his (presumed) teacher Chrysippus in the first book of the *On the Soul*. Galen, it seems, had direct access to Diogenes' treatise.<sup>3</sup> Apparently, it still was read and influential among Stoics and others in his day.<sup>4</sup>

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<sup>1</sup> These traditional dates have recently been called into question: see in particular T. Dorandi, *Ricerca sulla cronologia dei filosofi ellenistici* (Stuttgart 1991) 29 f., 61, 69 ff. 76, who argues that Diogenes lived on until ca. 140. If we credit Lucian, *Macr.* 20 that Diogenes died at the age of eighty-eight, this would push his birthdate forward to around 228 CE.

<sup>2</sup> Also containing II 8.47-48, printed, in *SVF* I, as (Zeno) fr. 140 and (Cleanthes) fr. 521. This passage mentions Chrysippus too but is not to be found among the Chrysippean fragments assembled in vol. II of the *SVF*.

<sup>3</sup> At *PHP* II 5.21 Galen tells us that he would not have presented Diogenes' version of Zeno's speech argument (nor for that matter Chrysippus', II 5.15-20) were it not for a Stoic (no name given) who disagreed with him over the meaning of the word χωρεῖ in this argument; see esp. *ibid.* 24 ἡναγκάσθη οὖν αὐτῷ τὰ τῶν ἄλλων Στωικῶν παραναγινώσκειν βιβλία ... On this passage see also *supra*, p. 42.

<sup>4</sup> For general evaluations of the impact of Diogenes' work in antiquity, see

The Diogenes fragments are not among the texts most assiduously studied by modern scholars—unjustifiably so.<sup>5</sup> In the following pages I shall attempt to uncover their original purport with a constant eye on Galen's mode of argument. As regards three arguments that have not been taken from Diogenes (8.30, 33, 36), we face the additional task of identifying their proponents, on whom Galen is tantalizingly reticent. Their arguments are clearly not given in verbatim quotation, so we also have to assess the authenticity of their wording in order to determine the extent of distortion involved. As far as Galen is concerned, my account in the main body of this chapter will be predominantly descriptive (§§ 2 – 4): it charts his procedures without probing deeper for underlying motives and without drawing general conclusions about his method. This appears at first blush to differ in certain interesting ways from that applied in the preceding sections of book II. In particular, Galen abandons the list of perceptible attributes he had used as his scheme of reference throughout. So how far is he following a different procedure and what is its nature and purpose? Having surveyed his argument, I shall attempt to give an answer to these questions in the closing section of this chapter (§ 5).

#### 4.2. *Two Peripatetic (and Stoic?) arguments*

Galen starts this part of his discussion as follows (*PHP* II 8.30):

They say that in the part from which the principle of nourishment (ἡ τοῦ τρέφεσθαι ... ἀρχή) is for animals, in that part is also the reasoning element (τὸ λογιζόμενον) of the soul; but the principle of nourishment is in the heart; therefore the reasoning and thinking element (τὸ λογιζόμενόν τε καὶ διανοούμενον) is located in the heart.

Like the other arguments in this section, this syllogism, given in paraphrase rather than direct quotation, is introduced as having been employed by 'almost everyone' (8.29, p.162.18). Von Arnim quoted it as a fragment of Chrysippus' *On the Soul* (*SVF* II 889),

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Von Arnim, *RE* V (1905) cols. 773-76; Tieleman (1991) 123; D. Obbink & P. A. Vander Waerdt, 'Diogenes of Babylon: The Stoic Sage in the City of Fools', *GRBS* 32 (1991) 355 f. with further references.

<sup>5</sup> But cf. Stein (1886) vol. 1, 179 f. Ganter (1894) 474 f. Rüsche (1930/1968) 256 ff., 272 ff.; Steckerl (1958) 38 (on 164.21-3); Schofield (1983) 40. Cf. also Bonhöffer (1890/1968) 44; Von Arnim, *RE* V col. 775 (45-51) (only on p.164.32 ff.); Pohlenz (1980) 51; Ph. De Lacy, *ad* p.162.30-2; *ad* 164.32-166.16; Fillion-Lahille (1984) 53.

though using his smallest font<sup>6</sup> and omitting it from his reconstruction of the second half of its first book (*SVF* II 911). Indeed, it seems improbable that Chrysippus, being Galen's principal target in *PHP* II, is not included among 'almost everyone'. However, the case for Chrysippean authorship is not a very strong one. It was made by Pohlenz, who argued that the conclusion of Diogenes' second argument represents a more stringent rewording of the conclusion found in the anonymous argument. A faithful pupil, Diogenes would have modelled his argument on Chrysippus'.<sup>7</sup> But the assumed similarity seems far from compelling. Galen's recasting of arguments used by opponents and his careless structuring of his discussion render reliance on textual minutiae perilous anyway. Moreover, the question raises itself why Galen introduces Diogenes in the first place. As far as the Stoics are concerned, Galen has decided to confine himself to Chrysippus (IV 1.3) and he deviates from this decision only when he has special reasons for doing so, as in regard to the Stoic speech argument.<sup>8</sup> So Diogenes' presence here may indicate that he had devised arguments which had *not* been used by Chrysippus and which were appealed to by the Stoics of Galen's day. Nonetheless, some doubt remains: Chrysippus in his demonstration had also referred to the physiology connected with the *πνεῦμα*,<sup>9</sup> and Diogenes' arguments may have been added because they were deemed more 'scientific' and hence more powerful than the relevant passages of Chrysippus.<sup>10</sup>

The problem of ascription is bound up with that of the relation between body and soul as conceived by the Stoics. Another reason why Pohlenz considered the argument Stoic lay in his belief that the early Stoics assigned the nutritive function, i.e. φύσις, to the soul in its strict sense. But this is contentious. I shall revert to this issue when we come to Diogenes' arguments, which after all provide material which is indisputably Stoic.<sup>11</sup>

The syllogism Galen attributes to his adversaries at 8.30 recalls an assumption he repeatedly ascribes to Chrysippus, namely that where the passions (πάθη) arise, there must also be the mind.

<sup>6</sup> See *infra*, p. 136.

<sup>7</sup> Pohlenz (1980) 51.

<sup>8</sup> See *supra*, n.3 with text thereto.

<sup>9</sup> See *infra*, pp. 237 ff.

<sup>10</sup> See further *infra*, p. 82.

<sup>11</sup> See Chs. 4.3, 4.4.

According to Galen, Chrysippus nowhere proves this assumption and so crucially begs the question in the face of the Platonic tripartition.<sup>12</sup> As part of his refutation, he presents this unproved assumption as the major premise of a syllogism analogous to the one we find here.<sup>13</sup> His line of refutation here runs parallel too: we should not take the question under investigation as *agreed* upon (8.31, p.162.25 f. οὐ χρή δὲ τὸ ζητούμενον ὡς ὁμολογούμενον λαμβάνειν).<sup>14</sup> He says that this investigation is one of things he will undertake in the present treatise (*ibid.*, p.162.24 f.) and that he will show that the opposite is the case, viz. that the two principles have separate seats in the body (*ibid.*, p.162.27). This of course points forward to Galen's demonstration that the Platonic appetitive part resides in the liver, which he offers in book VI, but is here still intending to give in the next book (cf. 8.49). He argues at length against Erasistratus and Aristotle that the liver is the centre of the venous system, whereas the heart is that of the arterial system only (VI 4-7).

At 8.33 he goes on to present another argument very similar in both content and form to the preceding one:

They do something similar also when they say that where the principle (source, ἀρχή) of nutriment (τῆς τροφῆς) is, there is also the regent part (τὸ ἡγεμονικόν), then add as a premise that the principle (source) of nutriment is in the heart.

Although this is introduced as a new argument, similar to but to some extent different from the previous one (8.33, p.162.30 ὅμοιον δέ τι ποιοῦσι), it is not clear, at first glance, what this difference consists in. Nor is it clear whether the new argument is presented as another one propounded by those also responsible for the argument at 8.30, or whether a different set of opponents is being introduced. One could assume that the term ἡγεμονικόν (8.33, p.162.31) is meant to indicate that we are dealing here with a Stoic

<sup>12</sup> On this 'unproved' assumption ascribed to Chrysippus see *PHP* III 2.6; IV 1.4; V 7.43; see further *supra*, p. 11.

<sup>13</sup> See *PHP* V 1.2: δεῖξαντες ἅπαντα τὰ πάθη συνιστάμενα κατὰ τὴν καρδίαν .... ἔπειτα προσλαβόντες ὡς ἔνθα ἂν ἡ τὰ πάθη τῆς ψυχῆς, ἐνταῦθ' ἔστι καὶ τὸ λογιζόμενον αὐτῆς, οὕτως ἤδη περαίνουσιν ἐν τῇ καρδίᾳ τὸ λογιστικὸν ὑπάρχειν. VIII 1.10: ἔνθα τὰ πάθη τῆς ψυχῆς, ἐνταῦθα καὶ τὸ ἡγεμονικόν· τὰ δὲ πάθη τῆς ψυχῆς ἐν καρδίᾳ· ἐν ταύτῃ ἄρα καὶ τὸ ἡγεμονικόν. Cf. Chrys. *ap.* Gal. *PHP* III 2.5 = 5.2 (*SVF* II 891) with Galen's comments (cf. II 7.18); and Galen's paraphrase of Chrysippus' argument from spoken language at *PHP* III 7.43-4.

<sup>14</sup> Cf. *PHP* II 8.32, p.162.28 f. (προχείρως λαμβάνουσιν) *ibid.* 34, p.162.34 ff.

argument. In that case Galen, though not quoting directly, was careful to use the Stoic term ἡγεμονικόν, having used the Platonic terms λογιζόμενον and [τὸ] διανοούμενον in the first argument.<sup>15</sup> If so, the second argument may indeed, as De Lacy has suggested,<sup>16</sup> anticipate Diogenes' first argument (8.40) featuring both τὸ ἡγεμονικόν and τροφή. But it seems unfeasible to differentiate between the two reported arguments on terminological grounds. Sensitivity to the specifically Stoic sense of the term ἡγεμονικόν is without parallel in Galen, who moreover disregards it in the first premise of Diogenes' argument (8.43).<sup>17</sup> And why should Galen presents two Stoic arguments—one by a group of anonymous Stoics and another by Diogenes—if their purport is identical?

As it is, Galen has no qualms about presenting one and the same argument on behalf of both Stoics and Peripatetics (Aristotle), i.e. assimilating two original versions of what he took to be essentially the same line of reasoning; and the argument given at 8.30 would have served him well enough. Such a simplification is attractive for argumentative purposes and is not unfamiliar as a dialectical ploy. In addition, it may be recalled that alongside a unitary tradition of sound philosophy and medicine Galen tends to identify traditions of error—a tendency which also makes for the assimilation of the positions of his opponents.<sup>18</sup> Further, we must note that Diogenes' argument refers to the πνεῦμα as well (8.40, p.164.21), about which Galen says nothing here. In fact, Diogenes' argument seems to be presented precisely because of its reference to the πνεῦμα, of which Galen comes to speak only from 8.36 onward.

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<sup>15</sup> These terms, it should be noted, do not exclude Stoic provenance, not only because their choice may be Galen's (see *infra*, n. 17), but also because Chrysippus on occasion employs Platonic terminology to an anti-Platonic purpose: *PHP* IV 1.5-13 (*SVF* II 905), paralleled in part by III 7.49-52 (*SVF* II 904), on which see *infra* p. 141; *Foet. Form.* IV pp.698-9 K. (*SVF* II 761, third text).

<sup>16</sup> De Lacy *ad* 162.30-2.

<sup>17</sup> See esp. the explicit equation of a number of terms (among which ἡγεμονικόν and λογιζόμενον) at *PHP* II 5.81; cf. *ibid.* 7.20; see further *supra*, p. 26.

<sup>18</sup> In *PHP* books I-III Chrysippus and (at least with regard to the location of psychic faculties) Aristotle represent the wrong line of thought, while, of course, Hippocrates and Plato represent the good one. Galen more often represents Chrysippus and Aristotle as committing the same mistake; e.g. the argument presented at II 8.21 should be ascribed to both of them; see *supra*, p. 45. On Galen's views of tradition and progress in general see esp. Vegetti (1986) 229 ff. and *supra*, p. xxi f.



It seems more promising to assume that Galen distinguishes what he calls the ἀρχὴ τοῦ τρέφεσθαι (8.30, p.162.20, 21 f.) from the ἀρχὴ τῆς τροφῆς (8.33, p.162.30). The infinitive τρέφεσθαι must denote the physiological *activity*, or *process*, of nourishment; the noun τροφή the nutriment as the *material* processed.<sup>19</sup> There is a corresponding difference of meaning of the term ἀρχή in the two arguments, as seems clear from their refutation. The second premise of the second argument is branded physiologically false in the light of a statement from the Hippocratic tract *De alimento* § 30<sup>20</sup> (8.34, repeated, in a more concise form, at 8.41) which shows that the heart receives the nutriment—in the form of blood supplied from the *vena cava*—at a later stage than several other organs (8.34 f.). Galen argues that each of the organs through which the nutriment successively passes should be called an ἀρχή in the sense of a first *instrument* (8.41). With reference to the same Hippocratic passage, Galen distinguishes this sense from that of ἀρχὴ κινήσεως, i.e. the principle (or cause) of the process. These different senses of ἀρχή, then, are at issue in the formulas with τῆς τροφῆς and τοῦ τρέφεσθαι respectively.<sup>21</sup> Accordingly, with regard

<sup>19</sup> Cf. *PHP* VI 6.21: ...ἀρχὴν ἐκεῖνό φαμεν εἶναι τὸ μόριον ὃ τοῖς ἀφ' ἑαυτοῦ πεφυκόσιν ἦτοι τὴν δύνάμιν ἢ πάντως γε τὴν ὕλην χορηγήσει... The distinction is not one of reference, but one of perspective, the philosopher speaking of 'power', the medical scientist of the material: see also *ibid.* VI 8.57-8; cf. Arist. *De an.* A 1.403a28 ff. and *supra*, p. xxxii.

<sup>20</sup> *CMG* I 1, p.82.11-2 Heiberg (= p.144.12-3 Joly). Galen takes Περὶ τροφῆς to present genuinely Hippocratic doctrine and cites it frequently; cf. J. Mewaldt, 'Galen über echte und unechte Hippocratica', *Hermes* 44 (1909) 121 n.1. On the nature and date of this treatise see H. Diller, 'Eine stoisch-pneumatische Schrift im Corpus Hippocraticum', *Sudhoffs Arch.* 29 (1936) 178 ff. repr. in: G. Baader-H. Grensemann (eds.), H. Diller, *Kleine Schriften zur antiken Medizin* (Berlin-New York 1973) 17 ff., who dates the treatise to the middle of the first century CE (190 f.). This is accepted by K. Deichgräber, (*Pseud-*)*Hippocrates Über die Nahrung. Text, Kommentar und Würdigung einer stoisch-heraklitisierenden Schrift aus der Zeit um Christi Geburt* (Mainz 1973). B. Joly, *Hippocrate, Tome VI.2* (Budé, Paris 1971) 136, however, argues persuasively for a considerably earlier date (second or third cent. BCE).

<sup>21</sup> Both senses of ἀρχή are also found at *PHP* VI 3.24 ff. where Galen argues that it is permissible to speak of the ends of a plant's roots and the ends of those veins that descend into the stomach as ἀρχαὶ τροφῆς. The same goes for those arteries which spread out in the lungs. But to call the veins' ends ἀρχαί in an unqualified way is absurd, because no end except those specified is an ἀρχὴ τροφῆς and no end whatsoever is an ἀρχὴ τῆς διοικούσης δυνάμεως. On ἀρχή in the latter sense as distinguished from other senses, see also *PHP* VI 6.20 ff. and II 8.22. From references in these passages it is clear that Galen gave a conceptual analysis of ἀρχή at the beginning of book I. See also *PHP* I, *Testimonies and fragments* IV (66.27 ff.) and cf. *supra*, p. 59. The lemma on ἀρχή

to the argument at 8.30 Galen refers to his full discussion on the seat of the Platonic appetitive part, in which he will argue that the liver is ἀρχή in the sense of 'principle' as required by the Platonic view, at least as he sees it.<sup>22</sup> This discussion, it should be noted, is intended for the next book (III).<sup>23</sup> No doubt this explicitly stated intention conditions his mode of treatment of the two arguments at 8.33 ff. and 8.40 ff. (Diogenes). As to the first of these, Galen makes the liver feature as ἀρχή in the 'instrumental' sense in the third instance only (8.35, p.164.4). As to the second, he agrees to consider the first premise as pertaining to the ἀρχή κινήσεως but avoids mentioning the liver by taking the premise to refer to the rational faculty in the Platonic sense. Is there, from a methodological point of view, more to this 'negative' approach than just the wish to treat the liver later on? Apparently, Galen is no longer working with an eye on his scheme of reference for the greater part of *PHP* II, viz. his fourfold classification of premises.<sup>24</sup> To facilitate understanding of Galen's procedure, it seems best to take an indirect route, that is, by scrutinizing the doctrines and arguments from the perspective of their original purport and context.

The original intention of the argument at 8.33 would become clearer if we could pinpoint its proponents or trace parallels from a more sympathetic, or at least more informative, context. Galen gives us no names. Now in those cases where contemporary opponents are *at the forefront* of his concerns, he is often inexplicit about their identity, which may reflect traditional practice rather than scorn.<sup>25</sup> Chrysippus and Aristotle in contrast are mentioned

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in Arist. *Met.* Δ 1.1012b34 ff. may have been of influence. Cf. also Galen's attack on Asclepiades' account of the cause of the arterial structure at *UP* VI 12, p.338.13-344.5 Helmreich (= III pp.464-71 K.).

<sup>22</sup> See previous n. For the liver as the seat of the nutritive principle, see also *PHP* VI 8.6 f. To Galen this amounts to the same as viewing it as the seat of the appetitive part of the soul: cf. VI 8.57. In fact, Plato at *Tim.* 70A-72D gave the liver a different role: see *supra*, pp. xxx f.

<sup>23</sup> See *PHP* II 7.21; cf. 8.31. As it is, this intention is only realized in *PHP* VI 3 ff. This intention also explains Galen's announcement at 8.49, p.166.17 f. to deal with Diogenes' argument quoted at 8.44 more extensively in the ensuing books. This may refer especially to Diogenes' view on ἀναθυμίασις, which subject, however, is not mentioned again until *PHP* VII 3.28 ff. Diogenes does not recur in *PHP*. Cf. De Lacy *ad loc.*

<sup>24</sup> See *supra*, Ch. 2.3.

<sup>25</sup> Likewise Alexander of Aphrodisias may omit Galen's name even when criticizing him, cf. Alex. *ap. Olymp. in Alc. I*, p. 171 Westerink with Nutton (1987) 48, and Rescher-Marmura (1965) 59. On Alexander's controversies with Galen see the literature referred to *infra*, n. 34. On the other hand,

by name when their arguments are at issue. But Galen's refutation of these arguments is more often than not prompted by the fact that they had been used by his adversaries in the contemporary debate. These people, then, are involved in the refutation, albeit implicitly.<sup>26</sup> This can be seen from such passages as the preface to *PHP* VII, where Galen refers, in general terms, to Stoics, Peripatetics and physicians as the adversaries among his readership, claiming that many among them have been persuaded by his arguments and refutations in the preceding books.<sup>27</sup> So when Galen at 8.29 refers to 'almost everyone' with respect to the argument he goes on to present (30) we may take him to be indicating all those mentioned here.

As to the Peripatetics, it may be profitable to compare an argument put forward by Galen's younger contemporary Alexander of Aphrodisias in his *On the Soul*, pp. 39.23-40.3 Bruns. The ἡγεμονικόν is in the heart, he says,

... for in the part in which first and above all being is for the animal, in that part is reasonably also the most important form; being is for the animal first and above all in moist and warm; of this kind is the region of the heart. For the heart is the principle and the source of the blood, by which we are nourished, and of the πνεῦμα,<sup>28</sup> and these are moist and warm.<sup>29</sup>

At p.94.17-20 Br. this argument is repeated (with reference to the above passage) as one of nine arguments which prove that the nutritive soul resides in the heart (pp. 94.17-96.10 Br.). These

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Galen devotes a few separate tracts to the refutation of some of his contemporaries, cf. his *Adversum Lycum et Iulianum libelli*, ed. E. Wenkebach (CMG V 10,3); for Lycus see *RE* XIII (1927) 2408 ff. (F. Kind); for Julianus *RE* X (1919) 11 f. (J. Gossen).

<sup>26</sup> On the contemporary context, cf. also *supra*, p. xxvi.

<sup>27</sup> See *PHP* VII 1.4. Cf. Vegetti (1986) 228 f.

<sup>28</sup> This must be the innate πνεῦμα : cf. *De an.* p.77.10-1 Br. Here its connection with the nutritive soul, which represents the most basic principle of life, must be meant. In Aristotle this connection is found at several places in his account of *reproduction* (the generative soul being identical with the nutritive soul: see *infra* n. 38): see *GA* B 3, esp. 736b30-737a8; *Γ* 11.762a19-28, b12-8; *B* 6.741b37ff., esp. 742a15-6: πνεῦμα δ' ὑπάρχειν ἀναγκαῖον, ὅτι ὑγρὸν καὶ θερμόν, τοῦ μὲν ποιοῦντος, τοῦ δὲ πάσχοντος. For a general account of the πνεῦμα according to Aristotle see Solmsen (1961a) 174-8; G. Freudenthal, *Aristotle's Theory of Material Substance* (Oxford 1995) 114 ff.

<sup>29</sup> ἐν ᾧ γὰρ μάλιστα τὸ εἶναι τῷ ζῳῳ, ἐν ἐκείνῳ εὐλογον εἶναι καὶ τὸ εἶδος τὸ κυριώτατον. ἐν θερμῷ δὲ καὶ ὑγρῷ τὸ εἶναι μάλιστα τῷ ζῳῳ. τοιοῦτος δὲ ὁ περὶ καρδίας τόπος. ἀρχὴ γὰρ αὕτη καὶ πηγὴ τοῦ αἵματος, ᾧ τρεφόμεθα, καὶ τοῦ πνεύματος, ταῦτα δὲ ὑγρά τε καὶ θερμά.

arguments function in Alexander's extensive demonstration in support of the cardiocentric position, which constitutes the finale of his *De anima* (pp. 94.7-100.17 Br.). But Alexander's argument concerned with the principle of nourishment, when compared with *PHP* II 8.30, should not be considered in isolation. His overall procedure in this section is highly relevant too. It is based on the following principle: in all things in which one thing is 'more perfect' and another 'more imperfect', the imperfect becomes perfect by an addition (p.94.11-16 Br.). This is applied to the soul: the nutritive faculty is one of its more imperfect faculties; where the nutritive faculty is, there also are the 'more perfect' ones. Then the series of arguments concerned with the seat of the nutritive soul is introduced, the first being (*ibid.* 17-20):

Where the nutritive faculty is, there also are the more perfect faculties; but the nutritive soul is in the heart, because this is the cause of living, and for living moisture and warmth are the material, and of that kind is the region of the heart, as I said before.<sup>30</sup>

The principle that the seat of the lower is also that of the higher ones is of course also expressed in the argument at p.39.21-40.3 Br. But in the present context it is applied in a much more elaborate way. Thus Alexander does not directly infer the seat of the ἡγεμονικόν from the presence of the nutritive faculty. Starting from the nutritive faculty gradually still higher or 'more perfect' faculties are reached. Their location in the heart is both inferred from the the lower faculty being there and demonstrated separately. Thus, after the proof that the nutritive faculty is located in the heart (p.94.17-96.10 Br.) the sensory soul is tackled (p.96.11 ff. Br.) until at p.98.24 Br. the regent part (τὸ λογιστικὸν μόριον τῆς ψυχῆς, ὃ καὶ ἰδίως ἡγεμονικὸν καλεῖται) is reached. In the entire demonstration the general principle laid down at p.94.11-6 Br. is applied throughout (cf. e.g. p.96.10 ff. Br.). But the remarks made in direct connection with the nutritive soul (especially p.94.14-8 Br.) on their own closely parallel the reasoning Galen ascribes to his opponents.

As might be expected, Alexander is inspired by specific Aristotelian passages. Thus his argument concerned with the principle of digestion recalls *GA* B 4.740a18-23:

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<sup>30</sup> ἐν ᾧ ἄρα ἡ θρεπτικὴ δύναμις, ἐν τούτῳ καὶ αἱ τελειότεραι. ἀλλὰ μὴν περὶ τὴν καρδίαν ἡ θρεπτικὴ ψυχὴ, εἴ γε τοῦ μὲν ζῆν ἥδε αἰτία, τῷ δὲ ζῆν ὕλη ὑγρότης τε καὶ θερμότης, τοιοῦτος δὲ ὁ περὶ τὴν καρδίαν τόπος, ὡς προείρηται.

This [scil. the heart] should be taken as being the principle of the animal or organism, from the moment it needs nutriment, for of course that which exists grows and, for an animal, the ultimate form of nourishment is blood or its counterpart. Of these fluids the vessels are the container; therefore the heart is also their source [or: principle, ἀρχή].

Galen intimately knew *GA* as well as other biological tracts of Aristotle.<sup>31</sup> In presenting the arguments at 8.30 and 33, he may also be thinking of Aristotelian passages like the one quoted. But his reticence on their authorship suggests a contemporary source.<sup>32</sup> The parallel in Alexander bears out this assumption. I do not wish to argue that Galen is here writing in conscious opposition to Alexander. This is unlikely on chronological grounds. While Alexander's definite dates are unknown, we can be certain that he held the chair of Peripatetic philosophy in Athens some time between 198 and 209 CE, which strongly indicates that he was Galen's<sup>33</sup> junior by about a generation.<sup>34</sup> *PHP* books I-VI, moreover,

<sup>31</sup> See Moraux (1984) 731 ff. and *id.*, 'Galen and Aristotle's *De Partibus Animalium*', in A. Gotthelf (ed.), *Aristotle on Nature and Living Things: Philosophical and Historical Studies Presented to David M. Balme* (Pittsburgh-Bristol 1985) 327 ff.

<sup>32</sup> See *supra*, p. 72 f.

<sup>33</sup> Galen was born in 129 CE, see e.g. J. Mewaldt, *RE* VII (1912) cols. 578-581; *PIR* IV2 (1952) s.v. '(Aelius) Galenus' (pp.4-6); V. Nutton, 'The chronology of Galen's early career', *CQ* 23 (1973) 159-61 (with further references). On the date of his death, see Nutton (1987) 46 ff., esp. 49, who thinks a date around 210 CE possible (instead of the traditional but suspicious date of 199-200 given by the *Suda*).

<sup>34</sup> See Todd (1976) 1. The termini for Alexander's tenure are based on the dedication of the *De fato* to the emperors Septimius and Antoninus (*De fato* p.164.3 ff. Bruns)—our only known biographical fact about Alexander. The identification—first made by Arabic biographers—of Alexander of Aphrodisias with Alexander of Damascus is based on *AA* I 1 (II, p.218.6-8 K.), where the latter is presented as, at the time of writing, a public professor of Peripatetic philosophy in Athens. The same Alexander features at *Praen.* 5.9-15, pp.96.5-98.9 Nutton as a sceptically minded expert on Peripatetic and (less so) Platonic philosophy, who quarrels with Galen on the occasion of an anatomical demonstration. On Alexander of Damascus, see Todd (1976) 4 ff., esp. 6 n. 29; P. Moraux, *Galen de Pergame: souvenirs d'un médecin* (Paris 1985) 81 n.2. On the relations between Galen and Alexander of Aphrodisias see Donini (1974) 148 ff., Nutton (1984) 318 ff. P. Thillet, *Alexandre d'Aphrodisie. Traité du destin* (Paris 1984) xxxiii-xlix. Sharples (1987) 1179 and nn. 18-21; P. Donini, 'Il "De fato" di Alessandro. Questioni di coerenza', *ANRW* II 36.2 esp. 1247-49 ff., *id.*, (1992) 3489. On the complicated Arabic evidence see in particular S. Pinès, 'A refutation of Galen by Alexander of Aphrodisias and the Theory of Motion', *Isis* 52 (1961) 21 ff.; Nutton (1987) 45-51. On Alexander's relations with his contemporaries and near-contemporaries see also R.W. Sharples, 'The school of Alexander?', in: Sorabji (1990) 83-111.

were written as early as his first Roman period (163-166 CE).<sup>35</sup> We may infer that those arguments which are found both in Galen and Alexander are traditional Peripatetic.<sup>36</sup> More examples can be pointed out: in book VI Galen refutes several arguments that can be paralleled from the section on the nutritive soul in Alexander, *De an.* pp. 94.7-96.10 Br.<sup>37</sup> And so can two arguments in *PHP* II concerned with the generative (i.e. also nutritive<sup>38</sup>) soul.<sup>39</sup>

The question therefore raises itself whether *both* arguments (i.e. 30 as well as 33) presented by Galen are Peripatetic in origin. Both Alexander and Aristotle rest their arguments on the observation that the heart is ἀρχή in the sense of the primary container of the blood, which they see as the 'ultimate nutriment' (e.g. Arist. *GA* B 4.740a22; Alex. *Aphr. De an.* p.94.28 Br.). This, of course, corresponds to the role of τροφή in the second argument in Galen. But in itself this does not preclude the possibility that the first argument also reflects a (closely related) Peripatetic argument, especially in view of Alexander's procedure in accordance with the general principle explained at p.94.11-6 Br. From the Peripatetic point of view the heart was both ἀρχή τοῦ τρέφεσθαι and ἀρχή τροφῆς. Each of these terms marks the heart as the seat of the nutritive soul.<sup>40</sup> Arguably, the distinction here between the power or activity on the one hand and the material on the other is entirely due to Galen.<sup>41</sup>

<sup>35</sup> See De Lacy, *PHP* vol. I, pp. 46 ff.

<sup>36</sup> Conversely, we may expect Alexander to respond, as he did on other points, to Galen's criticism of the Peripatetic arguments concerned with the psychic functions. I intend to pursue this line of inquiry elsewhere.

<sup>37</sup> *PHP* VI 384.1-388.7 should be compared to *De an.* p.94.6-95.4 Br. Cf. R.B. Todd, 'Galenic Medical Ideas in the Greek Aristotelian Commentators', *Symbolae Osloenses*, 52 (1977) 129. In particular we should compare *PHP* VI 5.1 ff. with *De an.*, p.94.26-30 Br. and VI 5.7 ff. with *De an.* pp.95.25-96.4 Br. There are also distinct correspondences as to the field of reference used for demonstration; both Galen and Alexander, though arriving at different conclusions, employ the analogy from plants and point to the gradual refinement of the structure of the blood-vessels: *PHP* VI 3.16 ff. *De an.* p.94.20-6; 95.4-6 Br.

<sup>38</sup> See (e.g.) Arist. *De an.* B 4.416a18; *GA* II 4.735a18 ff., Alex. *De an.* p.96.9 Br.

<sup>39</sup> *PHP* II 8.21, corresponding to *De an.* p.95.6-8 Br. and II 8.23, corresponding to *De an.* p.95.8-12 Br.

<sup>40</sup> On the nutritive soul, see *De an.* B 4.415a14 ff. and *GA* B 4.740b25 ff.

<sup>41</sup> It recurs several times in his discussion on the nutritive principle in *PHP* VI. At *PHP* VI 6.21 power and material appear side by side in the definition of ἀρχή in one sense (that is, the only sense strictly relevant in determining the seat of a part of the soul). At VI 8.57 Galen states that there is no essential difference whether one speaks of the liver as ἀρχή of the blood

We may now take a fresh look at Galen's refutation of the argument concerned with τροφή. Clearly, the nutriment meant in the parallel passages from Alexander and Aristotle is the blood qua ultimate form of nutriment, and it must be meant at 8.33, p.162.30 as well.<sup>42</sup> Although he makes clear that the nutriment has the form of blood from the liver onward, Galen again sidesteps an issue which he will be concerned with in *PHP* VI. There he argues against what is undeniably a Peripatetic view of the respective roles of the heart and of the liver (*PHP* VI 4.17 ff. Cf. Alex. *De an.* pp.94.6-95.4 Br.).

But it should be stressed that the Peripatetic parallels I have been adducing for these argument should not be taken to preclude their use by others, notably the physicians and Stoics featuring in the preface to book VII. Their position can however be best discussed in connection with the arguments advanced by Diogenes of Babylon.

I now proceed to another anonymous syllogism, presented subsequently at 8.36, which turns on the role of the heart as the supplier of πνεῦμα:

... they say that from where the supply (χορηγία) of πνεῦμα is, there is the regent part (τὸ ἡγεμονικόν); [...] the πνεῦμα is supplied (χορηγεῖσθαι) from the heart...

Galen counters the argument by a *distinguo*: if psychic πνεῦμα is meant, Diogenes begs the question. If vital πνεῦμα, it does not follow that both kinds of πνεῦμα have the same ἀρχή, viz. the heart (8.37). He goes on to appeal to Erasistratus for what he views as the correct doctrine: vital πνεῦμα starts from the heart, psychic πνεῦμα from the brain (8.38).<sup>43</sup> Here a counter-objection is imagined: the πνεῦμα

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(i.e. the material) or of the veins or of the nutritive soul, the physician speaking in terms of bodily organs, the philosopher in terms of psychic powers (cf. *ibid.* 77). At VI 4.1 ff. Galen makes clear that taking the liver as ἀρχή of the material (the blood) implies taking it as ἀρχή of the nutritive power.

<sup>42</sup> Digested nutriment had been explicitly distinguished from undigested nutriment by Aristotle in his account of the nutritive soul at *De an.* B 4 (see 416b3 ff.) followed by Alex. *De an.* p.33.13 ff. Br.

<sup>43</sup> In accordance with the stance taken here, Galen at *PHP* VII 3.27 ff. expounds his doctrine of the πνεῦμα; vital πνεῦμα is generated from inhalation and evaporation from the humours, which must in the first place mean the blood. Thus the sources and mechanism of generation are the same as for Praxagoras and the Stoics. The Erasistratean differentiation of vital πνεῦμα in the arterial system from psychic πνεῦμα in the brain—which is generated by a further refinement of the vital πνεῦμα in the so-called retiform web—is adopted. The psychic πνεῦμα is not equated with the soul's substance nor viewed as its dwelling, but called its 'first instrument' in an Aristotelian manner:

meant here is of a different kind, namely ‘material’ πνεῦμα (8.39), that is, inhaled air or breath. Galen rejects the argument thus understood by means of a reference to ‘Hippocrates’, *De alim.* § 30 (p.82.10 f. Heiberg), listing as ‘source of nutriment of πνεῦμα’ (ἀρχὴ τροφῆς πνεύματος) a number of organs (mouth, nose, windpipe, lungs) involved in respiration as well as the mechanism itself (ἡ ἄλλη διαπνοή) (8.39).<sup>44</sup>

But who are the adversaries behind the argument at 8.36 ? Again, the answer to this question need not be confined to one philosophical or medical school. Alexander, *De an.* p.39.21 Br. (see above, p. 73), too, pictures the heart as the principle and source of the innate πνεῦμα no less than of the blood (p.40.2-3 Br.: ἀρχὴ ... καὶ πηγὴ ... τοῦ πνεύματος), his point being that, since this πνεῦμα has the status of *instrument* of the (nutritive) faculty,<sup>45</sup> its presence in the heart indicates the location of the soul.

But 8.36 is equally consistent with Stoic and Praxagorean doctrine.<sup>46</sup> We may indeed discern here a reflection of *PHP* I 5.6 ff., where Galen argues against Chrysippus that the left ventricle of the heart is not filled with πνεῦμα alone. Further, Galen at *PHP* I 6.3 (*SVF* II 897, second text) reports that Chrysippus differed from Erasistratus as to the nature of the πνεῦμα in the heart: Chrysippus (following Praxagoras: see below) considered it to be it psychic, Erasistratus (fr. 203 Garofalo) vital πνεῦμα. But since Erasistratus, like Chrysippus, held that the arterial system contained only πνεῦμα, he comes in for criticism on this point (6.1), though obviously without bearing on the soul’s location.<sup>47</sup> Arguably, then, having based his refutation in *PHP* I on anatomical observation, Galen here reintroduces the same doctrine to refute it along different lines.

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see *MA* 10.703a4 ff. esp. 20, and *GA* B 5.789b8. Galen refers for this view to Aristotle at *SMT* XI p.730-1 K. On Galen’s stand in the discussion on the substance of the soul see also *supra*, pp. 9 f.

<sup>44</sup> See also *Caus. Resp.* IV p.466 K: ἀπὸ ὅλης τυγχάνων τῆς κατὰ τὴν ἀναπνοὴν χρείας; see on πνεῦμα as material also *infra* n. 49.

<sup>45</sup> See *infra*, n. 115 with text thereto.

<sup>46</sup> Several features of Stoic physiological theory are due to the influence of Praxagoras, see *infra*, pp. 189 f. Galen, moreover, read works by Praxagoras. This makes it virtually impossible and presumably needless to ferret out specifically Stoic and specifically Praxagorean elements in the arguments under consideration here.

<sup>47</sup> On Erasistratus’ position on the location of the soul, see *supra*, p. xxxvi.



The current doctrines on πνεῦμα we have just touched upon reveal that Galen's suggestion that πνεῦμα at 8.36 means inhaled air is made purely for argument's sake. On both the Stoic-Praxagorean and the Aristotelian view the πνεῦμα 'supplied from the heart' is sharply differentiated from what Galen calls 'material' πνεῦμα. Galen, then, is exploiting an opportunity provided by the unqualified use of the term.<sup>48</sup> But it also emerges that inhaled air was aligned with other forms by many authorities, Peripatetics, Erasistratus and others, as is also reflected in Galen's observation that it is 'analogous to dry and wet nutriment' (8.39, 17-8).<sup>49</sup>

#### 4.3. *Diogenes' First Argument*

Galen's mention of inhaled air as a third, 'material' kind of πνεῦμα forms the transition to Diogenes' first argument (8.40):

In the part which first draws in nutriment and πνεῦμα, there is the regent part; but what first draws in nutriment and πνεῦμα, is the heart.<sup>50</sup>

Galen begins by wondering in what sense the word 'first' is to be taken (8.41 f.). If it applies to the first organ(s) involved in the processes of nourishment and breathing (the 'instrumental' sense, for which see above), the argument is simply physiologically wrong, a point which Galen drives home by recalling the two quotations from Hippocrates he has used with regard to two other arguments (8.34, 39) in the preceding context. But Galen goes on to envisage the possibility that Diogenes should be taken to be using the phrase 'what first draws in...' in the sense of 'principle (or cause) of movement' (ἀρχὴ κινήσεως). In this case, Galen concedes that the first premise is true (8.42, p.164.26-7), taking it to refer to the centre of will (βουλόμεθα), responsible for such actions as eating,

<sup>48</sup> Similarly, Galen exploits Erasistratus' unqualified use of the term ἀρχή (*scil.*, τῶν φλεβῶν) to further his polemical purpose at *PHP* VI 6.28 ff.

<sup>49</sup> On breath and nutriment coupled as basic materials for the maintenance of life see e.g. Erasistratus at *Anon. Lond.* col. XXII.49-52: ἀλλὰ γὰρ ὕλην ὑπεβάλετο τροφήν τε καὶ πνεῦμα· δύο γὰρ πρῶτα καὶ κυριώτατά ἐστιν, οἷς διοικεῖται τὸ ζῶον, ὡς φησιν ὁ Ἐρασίστρατος. *Id.* col. XXIII.8-10. The linking of nutriment (wet and dry) and breath as basic materials was widespread: Arist. *Resp.* 11.476a16-8; ps.Arist. *Spir.* 4.482b25-7 (on which treatise see also *infra* p. 84 f.); Aretaeus, *SA* II 1.1 p.15 Hude (*CMG* II, Berlin 1958<sup>2</sup>); Cic. *ND* II 134 etc.

<sup>50</sup> ὃ πρῶτον τροφῆς καὶ πνεύματος ἀρύεται, ἐν τούτῳ ὑπάρχει τὸ ἡγεμονικόν, ὃ δὲ πρῶτον τροφῆς καὶ πνεύματος ἀρύεται, ἡ καρδία.

drinking and breathing, that is to say, taking it in a sense co-extensive with the Platonic reasoning part. But this, he counters, is active from the head (8.43, p.164.29-30). The added premise assigning it to the heart he labels a 'rash assumption'; it causes what Galen calls an ἀμφισβήτησιν ... ἰδίαν (8.43, p.164.31), i.e. a controversy or problem *peculiar* to Diogenes' argument.<sup>51</sup>

Galen's interpretation seems unfair at first glance, particularly in explaining the functions of nourishment and respiration in terms of voluntary motion and the Platonic rational part. But are we able to do more justice to the original intention of Diogenes' argument? To begin with, it should be related to reports on the Stoic view that the psychic πνεῦμα is nourished and sustained through vaporous exhalations of the blood in the heart as well as through inhaled air.<sup>52</sup> In Diogenes' argument, which links both breath and nutriment to the regent part, the nourishment of the psychic πνεῦμα must be at issue as well. But it seems peculiar to the Diogenes fragment to give the heart an active role in nourishing the regent part. This could imply that the regent part nourishes *itself*. Accordingly, I disagree with F. Rüsche, who takes 'first' in a sense similar to that proposed by Galen in his first interpretation, i.e. as pertaining to the first organ involved in the process.<sup>53</sup> Rüsche argued that Diogenes' purpose is to demonstrate that the heart is best suited to maintain the clarity and purity ascribed to the regent part (cf. Chrysippus at *PHP* I 6.12 = *SVF* II 897, third text). To this end the argument makes clear that the heart has the *first share* of the *blood*, which is the best and purest.<sup>54</sup> The same goes for the

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<sup>51</sup> De Lacy in his translation and *ad* 164.31 renders 'private controversy', relating the expression to Galen's unwillingness to grant the second premise, just as he refuses to grant the conclusion of the next syllogism. But I cannot see what this explains as regards the term in question, nor what the point is of De Lacy's reference to Plato, *Crg.* 506c ff. where without the term being used Socrates continues the dialogue by himself when Callicles is no longer willing to answer.

<sup>52</sup> Plut. *CN* 1084F (*SVF* II 847); Gal. *Hipp. Epid.* XVIIIB p.246 K (*SVF* II 782); *Ut. Resp.* 5 IV p.502 K (*SVF* II 783); M. Aurel., V.33, VI.15. Note that the Galen passages do not mention the Stoics. As concerns the relation of the soul with breath see also Chrys. *ap.* Gal., *PHP* III 1.10 (*SVF* II 885); and Calc. *In Tim.* c. 220 (*SVF* II 879).

<sup>53</sup> Rüsche (1930/1968) 272 f.

<sup>54</sup> Rüsche (1930/1968) 272 is right that τροφή at 8.44, p.166.2 (Diogenes' second argument) indicates the blood; on τὸ τρέφον, which he also (wrongly) takes as blood, see further *infra* pp. 90 ff. He further says that ἀρύεται also indicates that a liquid must be meant, but this argument has little value as the word also pertains to the πνεῦμα. Although ἀρύεσθαι is often used for drawing

breath, which first reaches the heart. This view of the respiratory tract, as Rüsche acknowledges, would justify Galen's criticism that it runs counter to physiological and anatomical facts (see above). But it is hard to believe that Diogenes would have given this forced and obviously incorrect meaning to 'first'. Galen's alternative reading—with 'first' indicating the efficient or moving cause—is more attractive. In this case Diogenes sees the basic materials of life<sup>55</sup> as being attracted by the regent part.

But what help is to be got from other sources? First of all, it may be asked what more is known about Diogenes' own doctrine concerning relevant topics. Consider the following lemma from ps.Plutarch's ('Aëtius') doxographic compilation:

Diogenes [*scil.* held the regent part to be] in the arterial ventricle of the heart, which is pneumatic (*Plac.* IV 5.7).<sup>56</sup>

We need not doubt that 'Diogenes' here means Diogenes of Babylon.<sup>57</sup> In the immediately preceding lemma the Stoics in general are recorded to have held the regent part to be in the *whole* heart or 'in the πνεῦμα in the region of the heart' (*Plac.* IV 5.6 = *SVF* II 838).<sup>58</sup> As it stands, Diogenes' δόξα is—in a way typical of the *Placita*—presented as both a further refinement and a compromise between these views.<sup>59</sup> But this should not mislead us into supposing that Diogenes was really deviant. *PHP* I 5.6 ff. (esp. 6.3, 12) proves that Chrysippus, too, held the view that the left ventricle

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in water, it is amply attested in a more general sense: see *LSJ* s.v. II.1. Although it cannot be disproved that τροφή means the blood, it is therefore safer to take it more generally. Rüsche is compelled to take τροφή as the blood because of his emphasis on the purity of the soul's πνεῦμα. On Diogenes' view on the place and the stage in the digestive process in which blood is formed nothing is known, as Rüsche concedes.

<sup>55</sup> Cf. *supra* n. 49.

<sup>56</sup> Διογένης ἐν τῇ ἀρτηριακῇ κοιλίᾳ τῆς καρδίας, ἥτις ἐστὶ πνευματικὴ. Cf. Theodor. *Graec. aff. cur.* V 22.

<sup>57</sup> G.P. Weygoldt, 'Zum Verständnis einer pseudoplutarchischen Nachricht über Diogenes', *Neue Jahrbücher für Philologie und Paedagogik* 123 (1881) 508 ff., Laks (1983) 234 f. with further references. The lemma is not however to be found among the fragments of Diogenes of Babylon presented in the third vol. of the *SVF* (pp.210 ff.). It features as *DK* 64 [Diog. von Apollonia] 20, third text, though with reservations on the editors' part: see note *ad loc.* and *DG* 204 n.1 where Diels suggests an emendation to Διοκλῆς but also notes the Stoic flavour of the lemma.

<sup>58</sup> Οἱ Στωικοὶ πάντες ἐν ὅλῃ τῇ καρδίᾳ ἢ τῷ περὶ τὴν καρδίαν πνεύματι.

<sup>59</sup> See Mansfeld (1990b) 3098.

(and this only) is filled with πνεῦμα.<sup>60</sup> That a separate notice on Diogenes' view found its way into the doxographical tradition may be not be entirely coincidental. It seems likely that Diogenes' contribution to the Stoic side of the debate—as expounded in his *On the Regent part of the Soul*—was considered significant. Indeed, the fragments preserved by Galen convey the impression that Diogenes' exposition was comprehensive and more technical and scientific than Chrysippus' in the *On the soul*.<sup>61</sup> The very fact that Galen turns away from the latter, his privileged adversary,<sup>62</sup> to discuss a few arguments advanced in Diogenes' treatise testifies to its influence well into the second century CE. If we accept Diels' hypothesis that ps. Plutarch's doxographic tract (as well as several related texts) derive from a single source, viz. the lost *Placita* of a certain Aëtius to be dated to the end of the first cent. CE, then Aëtius, attests to the interest taken in Diogenes at this time as well.<sup>63</sup> Indeed, it may have been Diogenes' presence in the doxographic tradition which drew Galen's attention to this Stoic and his *On the Regent Part of the Soul* in the first place.<sup>64</sup>

Diogenes also addressed the related questions of the substance and generation of the soul. Ps. Plutarch, *Placita* V 15 presents a number of tenets concerning the question as to whether or not the embryo is an animal (ζῷον), one of them labelled with the name of 'Diogenes':

Diogenes [scil. believes] that the embryos are generated without soul, but in warmth; that is why the innate heat draws the cold into the lungs as soon as the embryo is poured forth (*Plac.* V 15.4).<sup>65</sup>

<sup>60</sup> See *supra*, p. 78.

<sup>61</sup> See Tieleman (1991) 122 f.

<sup>62</sup> Cf. *supra*, p. xxvi f.

<sup>63</sup> Xenarchus of Seleucia, a contemporary of Arius Didymus and the emperor Augustus, and the most recent philosopher to be cited by ps. Plutarch, was, as Diels supposed, added to the traditional material by Aëtius himself, see *D. G.* 184 and Mansfeld (1990b) 3083 n. 104.

<sup>64</sup> On Diels' reconstruction of the doxographic tradition see *D. G.*, esp. 45-69 ff. Cf. Mansfeld (1990b) 3061; D.T. Runia, 'Xenophanes on the Moon': a "doxographicum" in Aëtius, *Phronesis* 34 (1989) 245-9.

<sup>65</sup> Διογένης γεννᾶσθαι μὲν τὰ βρέφη ἄψυχα, ἐν θερμασίᾳ δέ· ὅθεν τὸ ἔμφυτον θερμὸν εὐθέως προχυθέντος τοῦ βρέφους τὸ ψυχρὸν εἰς τὸν πνεύμονα ἐφέλκεσθαι. J. Mau, *Plutarchi Moralia*, vol.V fasc.2 pars 1 (Teubner, Leipzig 1971) 142. τὸ ψυχρὸν *add.* Diels; mss. ἐφέλκεται : ἐφέλκεσθαι Diels (cf. ps.Gal.); cf. Laks (1983) 169.

This lemma is commonly attributed to Diogenes of Apollonia.<sup>66</sup> However, there are excellent reasons for preferring Diogenes of Babylon.<sup>67</sup> *Plac.* V 15.4 is consistent with a number of Stoic fragments expounding the Stoic theory of the conversion of physical into psychic πνεῦμα at the moment of birth: it is the cooling of the physical πνεῦμα through the first inhalation which makes it a soul.<sup>68</sup> This conception is in keeping with the mechanism and use of respiration as described and implied in the Diogenes fragment at *PHP* II 8.40 we have just been discussing. In particular, we should note the correspondence between ἐφέλκεται and ἀρύετα (*ibid.* p.164.22). Thus the process whereby the soul comes into being is the same as that which sustains and nourishes it during the animal's life, viz. respiration—a neat and economical doctrine.

The influence of Praxagoras on the Stoic ideas on the soul and human physiology has already been demonstrated by others.<sup>69</sup> An important piece of evidence is *PHPI* 7.1 (*SVF* II 879, fourth text = Praxagoras fr. 11 Steckerl), where it is said that Chrysippus invoked Praxagoras' view on the νεῦρα ('sinews')<sup>70</sup> against those who located their source in the head. Praxagoras notoriously held that the arteries end in the νεῦρα, that is to say, that the heart is their source. This assumption is crucial to his physiology of voluntary motion. Voluntary motion originates in the psychic πνεῦμα in the left ventricle of the heart—another point on which he anticipated the Stoic doctrine.<sup>71</sup> The psychic πνεῦμα is—via the

<sup>66</sup> It is printed as 64 *DK* A 28 and T20a Laks.

<sup>67</sup> There is no good reason to assume that the Stoics were influenced by Diogenes of Apollonia on this point. For a full discussion of *Plac.* V 15.4 see Tieleman (1991), esp. 110 ff.

<sup>68</sup> See *SVF* II 804-8 and Philo, *Somn.* I 31, and ps.Galen [= Porphyry], *Ad Gaurum*, ch. XIV, pp.53.28-54.25 Kalbfleisch. In these texts as well as in ps.Plutarch the role of respiration is merely implied. These sources stress the opposition between the warm embryo, or its πνεῦμα, and the cold air from outside instead. Tertull. *De an.* 25.2 (*SVF* II 805), by contrast, expresses the aspect of breathing in the formula *animalem vim rapere* (said of the embryo). The parallels adduced by Waszink *ad loc.* suggest that it means 'acquires the quality of soul'. Nonetheless *rapere* may rather indicate the *drawing in* of the *breath*; cf. the well-known Latin etymology *anima-animus* as used in connection with the soul: see e.g. Cic. *TD* I 19. If this assumption is correct, the formula offers a neat word-play.

<sup>69</sup> Solmsen (1961a) 180 f., Hahm (1977) 160 ff., Steckerl (1958) 20, 38, 43.

<sup>70</sup> On the question of terminology involved here, see *supra*, p.48, *infra*, 189.

<sup>71</sup> Praxagoras fr.70 (Fuchs, *Anec. med.* 3 p.541): epilepsy caused by the

aorta—continuous with that in the arteries, which transmits impulses from the mind in the heart to the νεῦρα. In this chain of command, then, the νεῦρα effect bodily motion by acting as a kind of strings (fr. 9, 11, 75, 85 St.).

Like Chrysippus' relevant doctrines, those of Diogenes should be studied against a Praxagorean background. Ps.Plut. *Plac.* IV 5.7 proves that Diogenes concurred with Praxagoras as well as Chrysippus about both the soul's substance<sup>72</sup> and its location. Further, Diogenes' version of Zeno's speech argument rests on the doctrine of the continuity of the arterial system: the inhaled air (πνεῦμα) passes through the so-called 'rough artery' (i.e. the windpipe) and the lungs to the psychic πνεῦμα in the heart, which it supplements or nourishes.<sup>73</sup> On this point too Diogenes, like Chrysippus, followed Praxagoras.<sup>74</sup> Their conception of the mechanism and function of respiration is presupposed by Diogenes' argument at 8.40. *Plac.* V 15.4 too fits into the picture, at least insofar as the arterial continuity and the soul's nourishment are concerned. The breath inhaled at the moment of birth evidently goes to the heart.

As we have seen, Diogenes in the argument quoted at 8.40 not merely connects the heart—i.e. presumably the soul in it—with nourishment and respiration but describes it as the cause or principle governing these functions. This particular emphasis can be paralleled from the ps.Aristotelian tract *On Breath* (Περὶ πνεύματος),<sup>75</sup> 482b14 ff., whose author distinguishes between three

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accumulation of phlegmatic humours in the aorta; see also fr. 75 Steckerl (paralysis) (Fuchs, *Anec. med.* 20, p.550 = Diocles fr. 57 Wellmann); cf. fr. 30, 62, 69, 72 St. Philotimus fr.1 Steckerl ('the heart')

<sup>72</sup> This information also goes against the view that Diogenes of Babylon held the soul's substance to be blood: see *infra* p. 91 f.

<sup>73</sup> See Diogenes *ap.* Gal. *PHP* II 5.10, p.130.9-11 De Lacy (*SVF* III Diog. fr.29): ἡ φωνή ... ἐκ τῶν κάτωθεν ... διὰ τῆς ἀρτερίας διεξιούσα.

<sup>74</sup> For Chrysippus see *PHP* II 5.19 (*SVF* II 894): ἐκ τῆς καρδίας διὰ φάρυγγος καὶ τῆς φωνῆς καὶ τοῦ λόγου ἐκπεμπομένων. *PHP* III 1.10 (*SVF* II 885): τὸ διήκον ... εἰς τὴν τραχείαν ἀρτερίαν φωνὴν εἶναι. See also Galen's no doubt accurate report at *PHP* II 4.40 (*SVF* II 893). For Praxagoras, see fr. 10, 32 Steckerl; see also Gal. *Hipp. Epid.* XVIII B p.246 K. (*SVF* II 782) with Steckerl (1958) 20.

<sup>75</sup> Usually referred to by its Latin title as *De spiritu*. W.W. Jaeger did much to restore the garbled ms. text (*Aristotelis de Animalium motione et de Animalium incessu, Pseudo-Aristotelis de Spiritu libellus*, Leipzig 1913). See also the edition with translation by W.S. Hett in the Loeb Aristotle, vol 8 (1936, and later repr.); and the translations (with notes) by J.F. Dobson, in: J. Barnes (ed.), *The Complete Works of Aristotle: The Revised Oxford Translation* (Princeton 1985), vol. I, 764-773, and by J. Tricot: *Aristote: Parva Naturalia .... suivis du traité pseudo-aristotélicien De spiritu* (Paris 1951). This in many respects difficult treatise is predominantly aporetic in character. It is generally agreed that

kinds of motion of the πνεῦμα in the arterial system (τοῦ ἐν τῇ ἀρτηρίᾳ πνεύματος), which *includes* the 'rough artery' (ἡ τραχεῖα ἀρτηρία) or windpipe.<sup>76</sup> The processes referred to are respiration, pulsation and the motion whereby food is attracted and digested. Respiration is described as directed by a principle from within, which in the tentative manner typical of this tract is called 'either a power of the soul or the soul' (b23). Respiration and the nutritive motion are said to be closely linked to one another, the latter being said to proceed from the former.<sup>77</sup> This connection between the two motions as well as the role of the soul as the directive principle seated in the heart (cf. 482b33-4) are similar to the conception underlying Diogenes' argument at *PHP* II 8.40. It is unlikely that the Stoic drew upon the *On Breath*. Rather the similarities involved should be explained by their common dependence on Praxagorean physiology.<sup>78</sup> Indeed, a powerful case for Praxagorean influence on this and other passages of the tract was made by its editor W. Jaeger.<sup>79</sup>

We may conclude that there is no reason to postulate any substantial differences between Diogenes and Chrysippus. Diogenes

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Aristotle cannot be its author. Jaeger (1913) 58 ff. situated it in the Peripatetic school of the later 3rd c. BCE; its author is both incorporating and reacting to medical doctrines of that period, including those of Erasistratus and Praxagoras.

<sup>76</sup> Hett and Dobson translate 'windpipe'. J. Tricot ('la trachée-artère') follows suit. This translation is certainly possible in itself, cf. *LSJ* s.v. but in this particular context seems too restricted in view of what ensues, e.g. 482b18-9, where the formula 'the part up to which respiration is still perceptible' is used to mark off the rough artery/windpipe in particular. Conversely, Steckerl (1958) 24 f., who is concerned with the cause of the pulse, renders 'arteries', excluding, it seems, the 'rough artery'. Cf. also Von Staden (1975) 195 n.26 (with text thereto), who—with reference to our passage as well as 484a35—need not have said 'the author does not always distinguish clearly between *arteria* as "artery" and *arteria* as "windpipe".' At 483b3, b12, b14-15 Von Staden again proposes to read 'windpipe'. But in these cases, too, we have the same collective sense as at 482b14 f. Note the shifts in Hett-Dobson's translation, who in these three passages render 'windpipe' (but 'air duct' in the revised Oxford translation, see previous n.), 'air duct' and 'air ducts' respectively; in all three cases only the latter would have been adequate; cf. 484a1. The view that the arteries are filled with πνεῦμα (cf. also 483b18) was held by several authorities, most notably Praxagoras, cf. *infra*, p. 189.

<sup>77</sup> 482b25-7: ἡ δὲ θρεπτικὴ δόξειεν ἂν ἀπὸ τῆς ἀναπνοῆς· αὐτὴ γὰρ ἀνταποδίδεται, καὶ ὁμοία τῷ ἀληθεῖ.

<sup>78</sup> Cf. also 481a ff. on the digestive principle as located in the pneumatic soul—an account which coheres in many ways with Diogenes' arguments as well as other Stoic material, see *infra*, p. 87 ff.

<sup>79</sup> Jaeger (1913) 67; Steckerl (1958) 24.

inherited from Chrysippus and other predecessors in the Stoic school<sup>80</sup> a set of physiological doctrines which were largely<sup>81</sup> derived from Praxagoras.<sup>82</sup> But it is very likely he also drew directly on Praxagoras in elaborating Stoic physiology.

The argument at 8.40 (no less than that given at 8.36) acquires some force only when viewed in the light of the general doctrine it links up with—and I have attempted to show what this framework may have looked like. Much of Galen's talk about 'rash assumptions' is surely facilitated by his omission of relevant material from the context. This also goes for his complaints on the imprecision of the terms used by his opponents, notably that they do not specify what sort of πνεῦμα is meant (8.37 ff.) or that Diogenes does not make it clear what he means by 'first' (8.41 ff.). But a general grasp of the original doctrinal backdrop still leaves us with a pressing question concerning the precise status and function of Diogenes' syllogism as an argument for the Stoic cardiocentric theory. But it is better to return to this question when we have examined his second argument.

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<sup>80</sup> Stob. *Ecl. phys.* I 48.7, p.317.15-6 W. (*SVF* I Cleanthes fr. 523; cf. *DG* 392) indicates that the doctrine outlined and ascribed to Diogenes at *Plac.* V 15.4 had already been laid down by Cleanthes; see Tieleman (1991) 124 f.

<sup>81</sup> The Stoics subscribed to the doctrine of the innate (συμφυτὸν) πνεῦμα, held earlier by Aristotle; cf. e.g. Chrys. *ap. Gal.* *PHP* III 1.10. By contrast, Praxagoras believed it to be 'acquired' (fr.19 Steckerl); see Steckerl (1958) 36-7. See also *infra*, n. 127.

<sup>82</sup> Cf. Cic. *ND* II 134-8, expounding a Stoic theory of nutrition and respiration: the inhaled air is warmed in the lungs and from the lungs passes into the left ventricle of the heart; from the heart it is pumped through the body as vital πνεῦμα. At II 138 he says: '... ex his partibus [*scil.*, ventriculis cordis] et sanguis per venas in omne corpus diffunditur et spiritus per arterias' (cf. II 117; 83). Although this section in Cicero has been assigned to Posidonius and Panaetius, it agrees with what is known about Chrysippus' position to such an extent that it may be taken to express Chrysippean (or generally Stoic) doctrine; cf. Plut. *CN* 1084F (*SVF* II 847); Calc. *In Tim.* c. 220 (*SVF* II 879, quoted in the text *infra* pp. 96 f.); see Hahm (1977) 162 f. The theory preserved by Cicero is (ultimately) derived from Praxagoras; see Hahm (1977) 163, esp. 181 n.68. M. Pohlenz, review of Karl Reinhardt, *Kosmos und Sympathie*, *Göttingische Gelehrte Anzeigen* 188 (1926), 281-4, by contrast, sees a predominant correspondence with what is known about Erasistratus' doctrine, but this is not convincing. Pohlenz is on the whole very keen on relating Stoic doctrine to Erasistratus: cf. *infra*, p. 192.



4.4. *Diogenes' Second Argument*

Diogenes' second argument (8.44) reads:

That which causes a man to make voluntary<sup>83</sup> movements is a psychical exhalation; but every exhalation arises from nutriment; therefore that which first causes voluntary movements and that which [first]<sup>84</sup> nourishes us is one and the same.<sup>85</sup>

In the text that follows (8.45, p.166.5 ff.) there is a lacuna in the ms. (viz. after ὁμολογοῦντες at l.10).<sup>86</sup> Yet Galen's line of refutation can still be followed. It is, as Galen shows, directed against the conclusion of the syllogism alone. He accordingly exempts from criticism the view expressed in the first premise that the substance of the soul is a vaporous exhalation (p.166.5 περὶ—6 ἀναθυμίασιν) as well as the view that it derives from nutriment (6 εἴτ'—πνεύματος), which of course looks back to the second premise. As regards the first premise, this move is in keeping with Galen's general

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<sup>83</sup> The term προαίρεσις is used in a general sense indicating a free voluntary act. This use is found also in some later accounts of Stoic doctrine: Stob. *Ecl.* II 99.14-5 W. (*SVF* I 216); ps.Plut. *Plac.* ('Aëtius') I 29.7 (*SVF* II 966). In these texts it features as a piece of general philosophical jargon: see Inwood (1985) 240-2. At Stob. *Ecl.* II 87.21 W. (*SVF* III 173) a different technical and, it seems, fairly unimportant Stoic use is found. Here προαίρεσις is defined obscurely as αἵρεσις πρὸ αἰρέσεως, a choice which comes (temporally) before another choice. Inwood calls this an 'absurdly restricted use' in view of its importance as a central ethical concept for Aristotle (e.g. *EN* 1113a11; cf. 1139b4-5), just as it central to the moral psychology of the Stoic Epictetus. The older Stoics, he argues, must have relegated it intentionally to a low status in substituting their own theory of rational action for Aristotle's. This assumption need not be incompatible with the 'general' use found in this relatively early fragment from Diogenes, which is not taken into account by Inwood. What we expect to find in the premises of this syllogism is not technical and esoteric terminology but more common terms and concepts. Inwood and J.M. Rist, *Stoic Philosophy* (Cambridge 1969), 5, 228, 232 remark on the fact that Stoic writers before the first century CE hardly ever used the term προαίρεσις. Cf. also Bonhoeffer (1890/1968) 260. Rist, accepting Von Arnim's attribution of *Ecl.* II 99.14 W. (*SVF* I 216) to Zeno, arrives at a view on the history of the term within the Stoic school as well as its Aristotelian antecedents which is altogether different from Inwood's. But Rist does not take account of Stob. *Ecl.* II p.87.21 W. nor of the fragment from Diogenes.

<sup>84</sup> πρῶτον should probably also be understood with τὸ τρέφον: cf. the use of πρῶτον in the other syllogism (8.40).

<sup>85</sup> τὸ κινεῖν τὸν ἄνθρωπον τὰς κατὰ προαίρεσιν κινήσεις ψυχικὴ τίς ἐστὶν ἀναθυμίασις, πᾶσα δὲ ἀναθυμίασις ἐκ τῆς τροφῆς ἀνάγεται, ὥστε τὸ κινεῖν πρῶτον τὰς κατὰ προαίρεσιν κινήσεις καὶ τὸ τρέφον ἡμῶς ἀνάγκη ἐν καὶ ταυτὸν εἶναι.

<sup>86</sup> De Lacy in *apparatu* estimates its extent at about 150 characters. The sentence which he conjecturally gives cannot be far from the mark.

unwillingness to discuss the soul's substance,<sup>87</sup> and, as regards the second, with the fact that his own view amounts to much the same. The phrase εἴτ' ἐκ πνεύματος (p.166.6) indicating a conception which is, as far as I can see, unparalleled and surely difficult to understand, has only an *ad hominem* meaning. It should be compared with the charges of imprecision or obscurity made at 8.37 ff. and 41 ff.<sup>88</sup>

Galen begins his attack on the conclusion by denying that it follows from the premises, saying that in fact the opposite follows, i.e. the non-identity of 'what moves' and 'what nourishes' (8.46, p.166.9-10). This may be meant when Galen, before quoting the argument, says that Diogenes argues against himself (44, p.164.32). Diogenes' argument, he concludes, is indecisive. Galen uses ἀπέραντος, a technical term from Stoic logic, explained here by his comment that 'the conclusion he draws from the premises does not necessarily follow' (8.49).<sup>89</sup> The use of Stoic terminology no doubt makes this objection hard to refute for Stoics in particular.<sup>90</sup>

<sup>87</sup> On the exclusion of this traditional issue see: *supra*, pp. 9 f. At 8.38, however, Galen criticizes those who readily assume that the πνεῦμα in the heart is *psychic* πνεῦμα. He may already have Diogenes' ψυχική ἀναθυμίασις in mind. See also next n.

<sup>88</sup> For Galen's own hesitation about the matter at issue (at least during the period *PHP* II was written) see *PHP* VII 3.27 ff.

<sup>89</sup> *PHP* II 8.50, p.166.17: ὁ γὰρ ἐπιφέρει τοῖς ὑποθεθεῖσι λήμμασιν, οὐκ ἐξ ἀνάγκης ἔπεται. Cf. ἀπέραντος at *PHP* II 5.92 with respect to Zeno's argument from spoken language after it is re-phrased in a way which makes each of the premises true but destroys their logical connection: τῶν δὲ λημμάτων οὐδὲν μεμψόμεθα, τὸν δὲ ὅλον δὲ λόγον ἀπέραντον ὑπάρχειν ἐροῦμεν· οὐ γὰρ ἔτι συναφθῆσονται πρὸς ἀλλήλας αἱ κύριαι τοῦ συμπεράσματος προτάσεις (cf. II 5.84). Sextus, *M.* VIII 429 ff. (*SVF* II 240) distinguishes four ways in which an argument may be called ἀπέραντος. Galen's is in accordance with the first, viz. that 'by incoherence' (κατὰ διάρτησιν), which is the case 'when the premisses do not have a connection and coherence with each other and with the conclusion...' Galen's use also accords with the criterion for exposing this type of fallacy given by D.L. VII 77 (*SVF* II 238), that the opposite of the conclusion does not conflict with 'the connection of the premisses'. As was seen, Galen holds that, in fact, the opposite from Diogenes' conclusion follows (9-10). On Galen's acquaintance with Stoic logic cf. *supra*, p. 3.

<sup>90</sup> Stoic vocabulary is often used by Galen and others in polemical argument against Stoic tenets: see e.g. the use of οἰκειοῦσθαι at *PHP* V 5.6, p.318.5 (cf. De Lacy *ad loc.*) and Alex. Aphr. *Fat.* ch. 35 (p.206.30-1 Bruns = p.67.9 Thillet), where κατορθοῦν, the Stoic technical term for morally right action, is employed in an argument directed mainly against the Stoics, cf. J. Mansfeld, 'An echo of Middle Platonist Theology in Alexander De fato ch.34', *Vigiliae Christianae* 43 (1989) 87. An amusing instance is also found at Plutarch, *De esu carn.* 999A, who, inveighing against the Stoic acceptance of flesh-eating, asks: τίς γὰρ ὁ πολλὸς τόνος εἰς τὴν γαστέρα καὶ τὰ ὀπτανεῖα.

Further, Galen, in the lines following the lacuna (8.47, p.166.11-2), takes Diogenes to say in the conclusion that the soul is blood. Diogenes would 'forget the doctrines of his own school' and side with Empedocles and Critias.<sup>91</sup> The brief reference (not in Diels-Kranz) to the view of the soul's substance of these two Presocratics derives from the doxographic tradition known from surviving specimens such as ps.Plutarch's *Placita*. Galen here offers a clear instance of the use of doxographic overviews for polemical or dialectical discussions.<sup>92</sup>

Galen next turns against Diogenes' alleged view that of the first three Stoic scholars Cleanthes, Chrysippus and Zeno (names in that order), according to whom the blood is that *from which* the soul is nourished and the πνεῦμα is *what* it is, i.e. its substance (8.48). In doing so Galen takes, in Diogenes' argument, 'what moves' and the vaporous exhalation to be identical with the πνεῦμα, the soul's substance (cf. 8.45, p.166.5-6), and both τῆς τροφῆς<sup>93</sup> and τὸ τρέφον to denote the blood. To the latter equation I shall return presently.

Galen's refutation is aimed at bringing out a *non sequitur*. Diogenes' premises allegedly a conclusion contrary to the one he in fact draws. Moreover, his conclusion, stating that the soul is blood, also provides a case of disagreement among the Stoics. Since the conclusion thus interpreted also contradicts the first premise, Diogenes' argument is virtually reduced to nonsense. The fifth scholar of the Porch was of course a considerably less careless and confused person than Galen makes him out to be. His putative defection from a central school-doctrine should also be treated with

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<sup>91</sup> Both names are linked and attached to the same view at Tert. *De an.* 5.2 and Macrobius *Comm. in Somn. Scip.* I 14.20. Theodoret. *Graec. aff. cur.* V 18, while linking both, gives to each a view different from the other reports. Only Empedocles' view is given by Cic. *TD* I 19; Tert. *De an.* 15.5; ps.Plut. ('Aëtius') *Plac.* IV 5.8; Calc. *In Tim.* ch. 218-9. Only Critias' (blood) however by Nem. *De nat. hom.* 2 p.16.16 Morani. These authors probably *select* what they deem adequate or necessary from a more exhaustive source of the kind Galen is drawing upon as well. The deviation in Theodoretus may indicate that his source belongs to a different, though related, line of doxographic tradition. But there is always the possibility that names have become attached to the wrong tenet. There is only one other passage in *PHP* where Galen mentions a doctrine of a Presocratic, viz. Empedocles, which is presented in the form of a *direct quotation*: *PHP* VII 5.43. Cf. Arist. *De an.* A 2.404b8ff. *Met.* B 4.1000b5 ff. (31 *DK* B 109); Calc. *In Tim.* c. 51; cf. 218. On this lemma see further Mansfeld (1990b) 3073 n. 48.

<sup>92</sup> See e.g. Mansfeld (1990b), esp. 3057 ff.

<sup>93</sup> At p.166.10 the words ἐξ αἵματος μὲν ὁμολογοῦντες of an otherwise lost sentence evidently look back at the second premise.

suspicion. But even so, the original coherence and demonstrative force of the argument are by no means clear. Let us first try to answer the question exactly how Galen manipulates the material offered by Diogenes' argument.

Galen's interpretation that the ψυχική ... ἀναθυμίασις denotes the psychic πνεῦμα, i.e. the soul's substance (8.45, p.166.5), must be correct, just as his view that the τροφή from which it arises must be the blood.<sup>94</sup> Our sources describe the soul as a 'perceptive exhalation' (Zeno), a 'πνεῦμα grown together and an exhalation arising from the liquids of the body', the liquids being specified by others as 'an exhalation *from the blood*'. Several texts offer more or less the same information on behalf of the Stoics and together constitute a coherent picture.<sup>95</sup> It accords fully with the conception cited at 8.48 which Galen attributes to Cleanthes, Chrysippus and Zeno (SVF I 140), but turns against Diogenes.

The few scholars who have discussed this argument have on the whole<sup>96</sup> followed Galen in taking τὸ τρέφον as the blood. On the interpretation of F. Rüsche, Diogenes ascribed 'Willensfunktionen'

<sup>94</sup> τροφή indicating the blood as nourishing liquid is well attested: Plato, *Ti.* 80e1; Diocles fr.43 Wellmann (Gal. *Loc. Aff.* III 10: VIII pp.186 ff. K.); Hp., *Carn.* 13 VIII 600 L.; Arist., *PA B* 3.650a34 (ἡ τελευταία τ.); 4.651a13-5 (ἡ ἐσχάτη τ.); *Iuv.* 3.469a1; *GA B* 4.740a21; *De an.* B 4.416b21 ff. (see on this last passage *infra* n. 105).

<sup>95</sup> Euseb. *PE* XV 20.2 (Arius Didymus fr.39 Diels, SVF I 141/519): Ζήνων τὴν ψυχὴν λέγει αἰσθητικὴν ἀναθυμίασιν; *Schol. in Iliad.* II 857 (SVF II 778): ψυχὴ ἐστὶ πνεῦμα συμφυὲς καὶ ἀναθυμίασις αἰσθητικὴ ἐκ τῶν τοῦ σώματος ὑγρῶν ἀναδιδομένη; Gal. *UP* VI 17: p.361.17-18 Helmreich (SVF II 781): οὐδὲ γὰρ οὐδ' οὗτος ὁ ἀδύνατος, ὡς ἀναθυμίασις τις, εἴ γέ ἐστιν, αἵματος χρηστοῦ τὸ ψυχικὸν πνεῦμα; M. Aurel. V 33.4: αὐτὸ δὲ τὸ ψυχάριον ἀναθυμίασις ἀφ' αἵματος. Cf. Longinus *ap.* Euseb. *PE* XV 21.3 (SVF I Zeno 139 = Cleanthes 520): ἅμφω [sc. Zeno and Cleanthes] τοῦ στερεοῦ σώματος εἶναι τὴν ψυχὴν ἀναθυμίασιν φήσασι (Theod. *Graec. aff. cur.* V 27); Plut. *CN* 1084F (SVF II 847): ψυχῆς ... φύσις ἀναθυμίασις. The same conception was applied on a macrocosmic level: see SVF I 120 [Zeno], SVF I 501 [Cleanthes] and *Anon. Lond.* col. XXX, 17-29 on which see further *infra*, pp.94 f. Cleanthes already found a very similar conception in Heraclitus (SVF 141/519 containing Heraclitus B 12 DK). The term ἀναθυμίασις must be post-Heraclitean. This appears to be confirmed by Arist. *De an.* A 2.405a25 (= DK A 15). On these frs. see C.H. Kahn, *The Art and Thought of Heraclitus*, Cambridge (1979) 256-9. However, it has been asked to what extent the Stoic wish to find Heraclitean ancestry for their conception should lead to caution in interpreting the relevant fragments: cf. G.S. Kirk, *Heraclitus. The Cosmic Fragments* (Cambridge 1954), 367 ff.

<sup>96</sup> Apart from Pohlenz (1980) 51, who does not however present an interpretation: see *supra*, p. 68.

to the blood.<sup>97</sup> This should not however be taken to mean that the blood itself is the soul: τὸ τρέφον is only a κινῶν by proxy, for the blood effects voluntary movements by means of the exhalation (i.e. the psychic πνεῦμα, or the soul proper) that arises from it.<sup>98</sup> But the resulting conception does not convince. Apparently, the 'remote and indirect' sense is given by Rüsche to τὸ κινῶν in the conclusion in order to avoid an equivocation, viz. that it refers to the exhalation in the first premise and to blood in the conclusion. But this is not a natural way to read the conclusion 'what causes voluntary movements and that which nourishes us is necessarily one and the same' (44, p. 166.2-4, τὸ κινῶν πρῶτον τὰς κατὰ προαίρεσιν κινήσεις καὶ τὸ τρέφον ἡμᾶς ἀνάγκη ἔν καὶ ταὐτὸν εἶναι), if we take it to ascribe voluntary functions to the blood—a strange idea in the first place: what could have been Diogenes' point?

Rüsche is only slightly more circumspect than several other scholars who have been led by Galen into believing that Diogenes considered the soul's substance to be the blood in the heart.<sup>99</sup> Differences of doctrine among leading Stoics should not be precluded out of hand. Yet the massive silence of other sources on this divergence of Diogenes encourages the suspicion that we are dealing here with a Galenic fabrication. It is flatly contradicted by ps.Plut., *Plac.* IV 5.7, which attributes to Diogenes the view that the regent part is 'in the arterial ventricle of the heart, *which is pneumatic*' (see above, p. 81). But even if we refuse to credit the identification of this Diogenes as the Stoic scholarch, the verbatim material preserved by Galen himself tells decisively against Diogenes' alleged 'unorthodoxy'. His argument quoted at *PHP* II 8.40 (see above, p. 79) presupposes the πνεῦμα as the soul's material

<sup>97</sup> Rüsche (1930/68) 156 f. anticipated by Stein (1886) 179 f.

<sup>98</sup> Rüsche (1930/68) 156: 'Diogenes lässt deutlich genug [*sic*!] durchblicken, dass das τρέφον nur vermittels der ἀναθυμίασις die aus dem Blute aufsteigt, die willkürlichen Bewegungen bewirkt.' Cf. *ibid.* 272: '... das τρέφον die seelische ἀναθυμίασις aufsteigen lässt und dadurch die willkürlichen Bewegungen wirkt.'

<sup>99</sup> Stein (1886) vol. 1, 179 f. Ganter (1894) 474 f. Fillion-Lahille (1984) 53; Bonhöffer (1968) 44 says that Nemes. *Nat. Hom.* 2, p.19.14 f. Morani ascribes the doctrine that the soul is blood to a number of (unnamed) Stoics, but this must be a mistake (this doctrine is attributed to no person or group, whether anonymously or not). Schofield (1983) 40 also takes Galen's words at face value and brings the other fragments in *PHP* II (*SVF* III Diogenes frs. 29,30) into line with Diogenes' supposed heterodoxy. Nussbaum (1993) 115, too, mentions our passage as exemplifying 'unorthodoxy of a major kind' on Diogenes' part.

substance, and so does his version of the Stoic speech argument (*PHP* II 5.9-13).

As it is, Galen does not even imply that Diogenes regarded the soul as blood.<sup>100</sup> The way in which he introduces the view of the first three Stoic scholarchs at 48 (εἰ δέ γε ἔποιτο κτλ.) should be taken to indicate that he is presenting two possible *alternatives of interpretation* (note the optative).<sup>101</sup> If Diogenes is taken *au pied de la lettre*, he effectively abandons an important *Schulmeinung* in favour of quite another position. But if he means to follow Cleanthes and the other Stoics, his conclusion is inconclusive (ἀπέραντος); indeed it runs counter to the Stoic position by stating the identity of τὸ τρέφον with τὸ κινουόν. Thus Galen does not believe, nor would have us believe, that Diogenes had defected from the Stoic camp. In fact, he employs the same polemical tack in dealing with certain Chrysippean passages—cases where no scholar believes him.<sup>102</sup>

Galen's statement that Diogenes says that *the soul* is blood is based on the equation of τῆς τροφῆς indicating the blood, i.e. nourishment as *material*,<sup>103</sup> with τὸ (πρῶτον) τρέφον ἡμᾶς. Indeed the use of τὸ τρέφον for the blood can be paralleled in many medical contexts.<sup>104</sup> But Diogenes did not use different terms for no reason: τὸ (πρῶτον) τρέφον ἡμᾶς denotes the ('first') *principle* or *cause* of the *process* of nourishment.<sup>105</sup> The syllogism can now be seen as

<sup>100</sup> Remarkably enough, Rüsche (1930/68) 257 comes close to acknowledging this, saying that *Galen* allows for the possibility that Diogenes and Cleanthes and the other Stoics were agreed on the soul's substance (viz. as πνεῦμα) and of its nourishment.

<sup>101</sup> For this dialectical procedure see also Galen's critique of Empedocles' theory of generation, *Sem.* II 3, IV pp. 616-19 K. with Nickel (1989) 68 ff.

<sup>102</sup> Cf. *PHP* III 1.33 (Chrysippus echoing Plato); III 7.50 (Chrysippus agreeing with Aristotle); IV 1.6 (Plato); IV 1.11 (Hippocrates and Plato); IV 2.5-7 (Epicurus and Zeno, with whom Chrysippus is alleged to disagree over the nature of the passions).

<sup>103</sup> See *supra*, p. 77 f., p. 79 n. 49.

<sup>104</sup> Hp. *Alim.* 8: IX, p.100 L. (p.79.18 Heiberg): τροφή ... τὸ τρέφον; *Anon. Lond.* col. XXX.25 (τὰ τρέφοντα ἡμᾶς). On the former treatise see *supra* n. 20; on the latter see *infra*, p. 94.

<sup>105</sup> The use of the terms now corresponds with Aristotle's distinction at *De an.* B 4.416b21-3: ἐπεὶ δ' ἐστὶ τρία, τὸ τρεφόμενον καὶ ὃ τρέφεται καὶ τὸ τρέφον, τὸ μὲν τρέφον ἐστὶν ἡ πρώτη ψυχὴ, τὸ δὲ τρεφόμενον τὸ ἔχον αὐτὴν σῶμα, ὃ δὲ τρέφεται, ἡ τροφή. I do not suggest that Diogenes is in any way influenced by Aristotle in this case, but merely wish to demonstrate that the term τὸ τρέφον was used in a comparable context in the sense I have suggested. Of course, my view that according to Diogenes and other Stoics the nutritive principle was contained in the soul in the strict sense renders their conception more similar to Aristotle's. See further *infra*, p. 99.

expressing the idea that the soul, arising as an exhalation from the nourishing blood, is also the cause or principle of nourishment. But even so, it still seems incoherent and reveals nothing about the heart. We need not however accept Galen's contention that Diogenes and all the others who advanced this argument in some form or other failed to demonstrate that the heart contained the principle of nourishment (31, 43).

The original doctrinal framework of Diogenes' argument, or at least part of it, becomes clearer from Cicero, *ND* II 40-1 (*SVF* I 504),<sup>106</sup> where Cleanthes argues that the heavenly bodies, notably the sun, are living beings:

"Therefore", he says, "since the soul is made of fire, and is nourished by the moistures of the Ocean because no fire could continue to exist without sustenance of some sort, it follows that it resembles either the fire which we employ in ordinary life or that which is contained in the bodies of living creatures. Now our ordinary fire that serves the needs of daily life destroys and consumes all things [...] On the other hand, the fire of the body is vital and wholesome (*vitalis et salutaris*); it preserves, nourishes, maintains and bestows sensation on everything." He therefore maintains that there can be no doubt which of the two the sun resembles...

Cleanthes argues from the analogy of the individual animal to the macrocosm, as is continually the case in the Ciceronian context of this fragment. This is concerned with the world-soul, whose properties, parts and functions are being explained. It is evident, then, that the heat and fire of which Cleanthes speaks function in the same way on the microcosmic level, i.e. in the individual animal.<sup>107</sup> To the picture offered here corresponds that of the soul

<sup>106</sup> On this fragment Solmsen (1961c) 266 ff., Mansfeld (1982) 203-10.

<sup>107</sup> Closely parallel is Stob. *Ecl.* I, 25.3 ff. W. (*SVF* I 120) = Arius Did. fr. phys. 33 (*DG* 467): 3 Ζήνων—6 ψυχή. Also to be compared is the *Wärmelehre* presented by Galen, *Trem. Palp.* 6: VII pp.616-8 K., printed with minor omissions as *SVF* II 446. Although Galen introduces this passage as an exposition of Hippocratic principles designed to refute atomistic and mechanistic explanations of innate heat, Stoic ingredients can easily be detected. Thus Galen, focusing on the coherence and perpetual movement of the innate heat, clearly uses the concept of *τόνος*. Two Heraclitean fragments are paraphrased and applied on the microcosmic level (*DK* B 30 [51d Marcovich], B 60 [33 M.]). Compare also *σμπνοῦν* (p.616.10) with its use at *SVF* II 912, where it is said of the cosmos, and Chrysippus in D.L. VII 140 (*SVF* 543: *σύνπνοιαν καὶ συντομίαν*). Cf. Gal. *Nat. Fac.* I, *SM* III p. 109-10 Helmreich, *σμπνοῦν καὶ συρροῦν* and Hp. *Alim.* 23 *σύνπνοια καὶ σύρροια* (*Alim.* is a pneumatic treatise and reflects Stoic influence; see *supra* n.20) Galen's usual agnosticism concerning

as an exhalation from the blood.<sup>108</sup> Moreover, Cleanthes regarded the sun as the regent part of the cosmos (*SVF* I 499). The picture found here can be amplified from *ND* II 24,<sup>109</sup> where the importance for living beings of internal heat is stressed. Cleanthes is quoted as producing two arguments that prove how great the power of the heat is in the body as a whole, the first pointing to the role of the heat in the digestive process, the second to its role as the cause of the uniform motion of the pulse.

At this point we may also adduce a passage to be found in the medical papyrus—presumably a draft for a treatise intended for publication—written some time between the later first century BCE and the middle of the second century CE by an unknown author commonly referred to as *Anonymus Londinensis*.<sup>110</sup> Col. XXX.16-29 (not in *SVF*) expounds the Stoic conception of the sun as ‘intelligent ignited mass (ἄναμμα νοερόν) out of the sea’.<sup>111</sup> Yet the author is not primarily concerned with the macrocosm but rather with the digestion of moisture by human beings (cf. col. XIX.53 ff.), which has a dual nature: a beneficial part, which is absorbed into our bodies, and a bad part, which is evacuated. The sun is said to draw in what is fine, leaving ‘the more sluggish, thick and salt portion’ in the sea. An analogous process takes place in the human

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the soul’s substance is lacking. All this may indicate that Galen is drawing upon a Stoicizing source. Of particular interest to our present discussion is his reference to the self-nourishment of τὸ ἐμψυτον θερμόν (identified with φύσις and ψυχή) at p.617.6 f. K.: ἀνάπτεται [...] τῇ κάτω συννεύσει, τῆς τροφῆς ὁρεγόμενον... Cf. II.15 f.

<sup>108</sup> See *supra*, n. 95.

<sup>109</sup> Partly printed as *SVF* I 513, unwarrantably omitting Cleanthes’ second argument (see in text): see Mansfeld (1982) 204. Von Arnim does give the brief passage that immediately precedes Cleanthes’ arguments at 23, suggesting that it came from Cleanthes through Posidonius. This passage also stresses the role of the heat in nutrition and growth. It was accepted as Cleanthean without Posidonian mediation by Solmsen (1961c) 268 ff.

<sup>110</sup> On its controversial nature and date see in particular three studies by D. Manetti, viz. ‘Note di Lettura dell’ Anonimo Londinese – Prolegomena ad una nuova edizione’, *ZPE* 63 (1986) 57-74, esp. 57-66; ‘37T’, *Corpus dei Papiri Filosofici* (CPF) I 1.1 (Firenze 1989) 345-51; ‘Doxographical Deformation of Medical Tradition in the Report of the Anonymus Londinensis on Philolaus’, *ZPE* 83 (1990) 219-33.

<sup>111</sup> Cf. *SVF* I 501; II 655, 656; Clem. Al. *Strom.* VIII 4.3 (III, p. 82.5-6 St. Not in *SVF*). At col. XXX.22 the ‘ancients’ are referred to. There is explicitly Stoic material at cols. II.22-30 and II.39-III.15 concerning the affections. At col. XIII.16-32 an undoubtedly Stoic distinction between kinds of mixture is found. None of these texts is included in the *SVF*.



body: 'In a similar manner from the fluid that we take in there are taken away *the parts that nourish us...*' (ibid. 24-5). The cosmic process, then, is called upon to explain the digestive process on the microcosmic level. Clearly, this account is consistent with and further elucidates the picture emerging from our other fragments.

So what does this textual evidence add up to? The regent part (the sun) as the main mass of heat plays a central part in the nourishment and maintenance of the living being. Further, the self-nourishment of the regent part from exhalation, is connected with its nourishing agency vis-à-vis the other parts by means of its heat. This connection is also found in Diogenes' argument, given our explanation of 'what first nourishes *us*' as the nutritive principle. Like the sun on the macrocosmic level, the soul can only retain its warmth and exert its nourishing and sustaining activity on the whole body if it is nourished itself.<sup>112</sup>

The identification of the principles of nourishment and movement (i.e. the regent part) bears directly on the question of the relationship between body and soul. Diogenes' argument at 40 might be taken to imply that the function of nourishment belongs to the heart, that is to say the *body*, although the heart and the soul remain intimately connected, the soul being nourished first. In that case, φύσις or πνεῦμα φύσικον are assigned to the body too. However, the evidence from other sources (which I shall presently consider in more detail) goes against this conception: here the soul is unequivocally credited with both the conscious functions of life and the unconscious ones of nutrition and growth. This brings the Stoics more in line with the Platonic and the Aristotelian<sup>113</sup> theories which locate the nutritive function in the soul proper, although a marked difference lies in the fact that for the Stoics the

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<sup>112</sup> Cf. Aët. I 7.17 (SVF III Diogenes): 'Diogenes and Cleanthes and Oinopides held that god is the soul of the cosmos.'

<sup>113</sup> The emphasis placed by Cleanthes on the nutritive and preservative functions of the soul prompted Hahn (1977) 141 ff. to see his conception of the soul as modelled on Aristotle's. Hahn represents the view that the influence of Aristotelian (esoteric) works may be taken into account in explaining early Stoic physical tenets. The opposite stance is represented by, notably, F.H. Sandbach, *Aristotle and the Stoics* (Cambridge 1985), in accordance with the traditional view of the disappearance of Aristotle's school writings from the philosophical stage for about three centuries following Theophrastus' death. I cannot discuss here seriously the question of the supposed relation between the psychological theories of Aristotle and the Stoics.

soul is itself (corporeal) heat or fire (*calor, ignis*),<sup>114</sup> while Aristotle went no further than according to τὸ θερμόν the status of the *instrument* of the nutritive soul.<sup>115</sup>

The soul in its specific sense, i.e. the ἡγεμονικόν and the seven other parts functionally dependent on it,<sup>116</sup> includes the cause or principle of nourishment, the ἀρχὴ τροφῆς.<sup>117</sup> Thus Calcidius, *In Tim.* ch. 220 (SVF II 879), purporting to present Chrysippus' *ipsissima verba* (italics mine):

The soul's parts flow from their seat in the heart, as if from the source of a spring. They continually fill all the limbs with vital breath [i.e. πνεῦμα], and rule and control them with countless

<sup>114</sup> From Zeno onward, soul is described both as fire and as πνεῦμα. It is repeatedly made clear that the principal feature of the πνεῦμα is its warmth: SVF I 134-8 Zeno; 521, 522 Cleanthes; SVF II 770, 773, 774. For τὸ θερμόν see also *supra*, p. 92.

<sup>115</sup> See Arist., *De an.* B 1.412a27-8 with Hahm (1977) 147. Interestingly, this difference between the Stoic and Peripatetic views recurs in Alexander's account of the nutritive soul (*De an.* pp.34.27-35.5 Br.). Having explained that τὸ θερμόν functions as instrument for the activity of the nutritive soul Alexander, with undeniable reference to the Stoics, says: διὸ καὶ τισιν ἔδοξεν ἤδη τοῦτ' [scil. τὸ θερμόν] εἶναι τὸ τρέφον τὴν τῆς ποιούσης ἀρχῆς δύναμιν ἐπὶ τὸ δι' οὗ ποιεῖ μεταφέρουσιν διὰ τὸ ὁρᾶν χωρὶς ταύτης μὴ δυνάμενον τρέφεσθαι τι.

<sup>116</sup> Cf. the (Stoic) distinction presented by Sextus, *M.* VII 234, between soul in the sense of that which holds together the whole compound (σύγκρισιν) and of the ἡγεμονικόν. According to the Stoics, when man is said to be composed of body and soul, and death to be a separation of both, soul in the latter sense is meant. Soul in the strict sense of ἡγεμονικόν is likewise distinguished at D.L. VII 159. Cf. also Long (1982) 39 f.

<sup>117</sup> To the passages quoted or referred to in the text the following are to be added: Philo, *Leg. alleg.* II 22 (SVF II 458) from which it appears that the higher psychic functions of sensation and impulse are *added* to a pre-existing φύσις. Arius Didymus fr. phys. 33, *DG* 467 (SVF I Zeno 120) closely parallel to Cleanthes *ap.* Cic. *ND* II 23-4 on which cf. *supra* n. 94. The doctrine of the intelligence of the sun and the other heavenly bodies is attributed to Zeno. Next the two kinds of fire are distinguished and explained: τὸ δὲ τεχνικὸν ἀνδρῶν τε καὶ τηρητικόν, οἷον ἐν τοῖς φυτόις ἐστὶ καὶ ζώοις, ὃ δὲ φύσις ἐστὶ καὶ ψυχὴ (*DG* 467.5 f.). The mention of ψυχὴ is noteworthy: the sustaining heat (πνεῦμα) defining the mode of existence of vegetative life is included in the *soul* of animals. (Contrast SVF II 716 [Galen] ascribing both φύσις and ψυχὴ to animals; on this incongruity in the evidence see *infra* in the text). Perhaps *PHP* III 1.12-4 (SVF II 885) should be added; from Chrysippus' words here it may be inferred that the ἡγεμονικόν embraces the functions of all three Platonic parts, i.e. including the appetitive (cf. Pl., *Tim.* 70d: 'The part that is desirous of food and drink and all that it comes to need because of the nature of the body...'). Further, the Stoic definition of the soul in its strict sense as presented by Sextus, *M.* VII 234 (see previous n.) implies, I believe, that the functions corresponding to φύσις are included in the soul, i.e. soul in the sense of the ἡγεμονικόν with the seven other parts.

different powers—*nutrition, growth, locomotion, sensation, impulse to action.*<sup>118</sup>

According to the reading first propounded by Bonhöffer<sup>119</sup> and Pohlenz,<sup>120</sup> the defining functions of φύσις, growth and nourishment, which characterize the embryo's mode of existence, become part of the soul at the moment of birth, when the πνεῦμα φύσικον turns into πνεῦμα ψυχικόν.<sup>121</sup> Diogenes' second argument coheres with this view. Indeed, Pohlenz relied on this argument and the anonymous one at *PHP* II 8.30, on which he thought Diogenes' was modelled (which entails taking the model to be Stoic as well).<sup>122</sup> This interpretation has come under attack from Long, who, in his study of the Stoic view of the body-soul relationship,<sup>123</sup> points to the Stoic distinction between three kinds of πνεῦμα: cohesive, physical and psychical. Those sources which describe living beings in terms of this distinction assign the functions of growth and nutrition to φύσις, not ψυχή.<sup>124</sup> Some accounts of the

<sup>118</sup> *partes animae velut ex capite fontis cordis sede manantes per universum corpus porriguntur omniaque membra usque quaque vitali spiritu complent reguntque et moderantur innumerabilibus diversisque virtutibus nutriendo adolendo movendo motibus localibus instruendo sensibus compellendo ad operandum...*

<sup>119</sup> Bonhöffer (1890/1968) 69 f. (cf. 105 ff.), who points to D.L. VII 138 (*SVF* II 634) pertaining to the cosmic soul, on which see also Hahm (1977) 163 f. See also Bonhöffer, 'Zur stoischen Psychologie', *Philologus* 54 (1895) 403 ff. (esp. 413), is followed by Bréhier (1951) 163.

<sup>120</sup> Pohlenz (1980) 87: 'Sie [die Seele] gibt dem Leibe, den sie total bis in die äußersten Teile durchdringt, Leben und Bewegung und sorgt für seine Ernährung und Erhaltung, übernimmt also die Funktion, die beim Embryo die allgemeine Physis geübt hatte. Dazu ist sie befähigt durch das Bewußtsein, durch Vorstellung und Trieb, die im Gegensatz zur Physis der Pflanzen das Wesen der Seele ausmachen' (italics mine).

<sup>121</sup> On the generation of the soul see the evidence referred to *supra*, n. 68.

<sup>122</sup> Pohlenz (1980) 51. Indeed he used the similarity between both arguments for attributing the first to Chrysippus: see *supra*, p. 68.

<sup>123</sup> Long (1982) 43 ff. Thus at p. 44: 'Since there is no good evidence that soul in the specific sense does control digestion, bodily growth etc., we should probably conclude that the functions of the Aristotelian nutritive soul (apart from reproduction) become functions of the *body* when an animal is born. The idea would be that the growth of the body is now such that the heart etc. can control purely bodily functions without needing direction from the soul ...' Long (n.27) suggests that Calc. *In Tim.* c. 220 presents a conflation of soul in its specific sense with soul as the πνεῦμα in general. But this is to prejudge the issue. Calcidius' account has all the appearances of a reliable report of Chrysippus' words. The other sources invoked by Long present a consistent picture which should not be dismissed (except perhaps for *SVF* II 718; see next n.); but nor should we use them to emasculate the important testimony offered by Calcidius; see further in text.

<sup>124</sup> *SVF* II 716 (ps. Galen, *Introductio sive medicus*); 714 (Clement); 718. The

soul in the strict sense, moreover, omit any mention of the nutritive function. After birth, Long infers, growth and nutrition remain bodily functions—a residue of πνεῦμα φυσικόν not turned into πνεῦμα ψυχικόν at birth.<sup>125</sup> This would seem to be a natural consequence if we accept the exclusion of the functions concerned from the soul. But we should face the fact that on the latter point our sources are divided. One cannot explain away those diverging from the conception advocated by Long, notably Calcidius as cited above. It seems preferable, then, to settle for a doctrinal shift rather than an incongruity insufficiently faced.<sup>126</sup> How it arose can perhaps be best understood from a historical perspective. As we have noticed, Diogenes drew upon current medical views, most notably those of Praxagoras, according to which the internal heat and its successor, the πνεῦμα, is the vehicle of both the digestive faculty and the higher psychic functions.<sup>127</sup> But soon thereafter the

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last 'fragment', however, is drawn from *Adv. Iulianum* 5, XVIII A p. 266 K. where Galen presents the hierarchy of three kinds of πνεῦμα on behalf of himself and without reference to the Stoics. This testimony should be used with caution, not least because Galen assimilates the Platonic and Stoic positions, see *infra*, n. 130.

<sup>125</sup> Long (1982) 44.

<sup>126</sup> Long (1982) n.28, professes to 'differ sharply' from Bonhöffer and Pohlenz (but cf. p. 45). But in Long-Sedley (1987) vol. 1, 320, he attempts to reconcile the conflicting evidence: 'If pressed, the Stoics would probably have been willing to attribute all features of an animal's life to its soul. In practice, their account of its powers suits only the restricted conception...'

<sup>127</sup> See Steckerl (1958) 11 ff. (cf. 38); *RE* XXII 2, col. 1738 (K. Bardong). In fr. 18 St. (Gal. *De nat. fac.* II 8) Praxagoras and his pupil Phylotimus are mentioned on a par with Hippocrates and Aristotle as venerable authorities attributing the genesis of the blood and the other humours from the nutriment to the *innate* heat. In another passage (*Trem. Palp.* 6 VIII p.614 K = fr. 19 St.) Galen, concentrating on the heat itself, explicitly says that Praxagoras and Phylotimus held the heat to be acquired, not innate; this must be correct. It is not unusual that such distortions as encountered in fr.18 occur in Galen's summings-up of ancient authorities in recommendation of a particular tenet, as Steckerl (1958) 10 f. has noticed. But this does not rule out its value as a fragment insofar as the heat as such is concerned. (cf. Prax. fr. 20 St.). The view that the heat played a most important part in the digestive process was quite generally held; cf. Rüsche (1930) *passim*. But Erasistratus disagreed (cf. Gal. *Nat. Fac.* II 8 = Prax. fr. 20 St. Celsus, *De med.*, *Prooem.* 20). Hahn (1977) 160, 169 has attempted to play down the role of the heat in the digestive process according to Praxagoras but his appeal to Praxagoras' pupil Plistonius fr.1 is insufficient. Plistonius is said to have believed that putrification (*putrescere*) was involved, but this rather favours our view that the heat effected the digestive process according to Praxagoras. Plistonius' view is opposed to Erasistratus', who held a 'mechanistic' doctrine (*teri cibum in ventre*), cf. Steckerl (1958) 11 ff. That this heat was centred in the heart's πνεῦμα seems probable enough but cannot be proved. Yet both Diogenes at 8.40

Stoics were more inclined to differentiate φύσις from ψυχή, presumably with a view to modelling the microcosmic hierarchy of kinds of πνεῦμα more closely on the *scala naturae* on the macrocosmic level. In this connection we may recall that Diogenes' pupil Panaetius (ca. 185-109 BCE) demoted the reproductive part of the soul to the status of φύσις.<sup>128</sup> This seems to make sense only if applied to a pre-existing scheme in which nutrition and growth were already part of φύσις. How widely this scheme was accepted in Stoic circles must nonetheless remain an open question.<sup>129</sup> Anyhow, Panaetius' adjustment sets off the Stoic doctrine more clearly against Aristotle's nutritive-cum-generative soul.<sup>130</sup> Here one may well ask how we should conceive of the distinction between πνεῦμα ψυχικόν and φυσικόν on the physical level: does it involve an actual separation?<sup>131</sup> But however this may be, the difference between the Stoic and Aristotelian positions on this point was not purely verbal, as Galen maintains.<sup>132</sup> In general, it testifies to the way some Stoics grappled with the problem of the relation between body and soul.

There remain two questions concerning Diogenes' second argument. First: why did Diogenes formulate an argument to establish the identity of the principles of volition and nourishment? Of course, the seat of the regent part is at issue. This may have prompted Galen to treat this argument here, although it also bears

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and the Praxagorean section in ps.Aristotle discussed *supra*, p. 84 f. would seem to favour it.

<sup>128</sup> See fr. 86 van Straaten (= Nem. *De nat. hom.* Ch.15, p.72 Morani), 86a (*ibid.* 26: p.87 Morani), 85 (Tert. *De an.* 14.2 Waszink).

<sup>129</sup> M. van Straaten, *Panētiūs, sa vie, ses écrits et sa doctrine avec une éd. des fragments* (Amsterdam 1946) 96 ff. believes that the Chrysippean fragment *ap. Calc. In Tim.* ch. 220 (see in text *supra*, pp. 96 f.) attests to a *general* Stoic tradition which rejected the φύσις / ψυχή distinction (p. 99), but he takes no other fragments into account.

<sup>130</sup> Cf. ps.Alexander, *Mantissa* p.118.25-6 Br. (SVF II 873) preserving a Peripatetic argument against the Stoic inclusion of the reproductive part into the soul: ἐτι εἰ τὸ γεννητικὸν μόνιον ψυχικόν φασιν, τοῦτο δὲ ὑπὸ τὸ φυτικόν, εἴη ἂν καὶ τὸ φυτικόν πᾶν ψυχικόν. This argument, framed entirely in Peripatetic terms, presents the Stoic view only until φασιν. Cf. *ibid.*, 118.12-4 Br. (SVF II 711); Arist. *EN* I 13.1102a32, b19 (φυτικόν); Alexander, *De an.* p.96.9-10 Br. (φυτικόν); Gal. *PHP* VI 3.7 (Platonic, Peripatetic and Stoic terms compared; similarly Clem. Al. *Strom.* VIII 10.4, 7-11.7; on *Strom.* VIII see *supra*, pp. 20, 24 f., 30, 36).

<sup>131</sup> Thus Long (1982) 45: 'An animal does not have two souls, but its single soul can be treated as either all of its πνεῦμα or only the most tenuous parts of that substance depending upon what question we are asking.'

<sup>132</sup> See *PHP* VI 3.7.

on the question of the appetitive part, which he intends to discuss in *PHP* III.<sup>133</sup> Here, he announces, he will also return to this argument of Diogenes (8.50, p.166.17 f.). Having established the identity of the two principles concerned, one of which, the nutritive, could be localised more easily in the heart, Diogenes may have proceeded by concluding that the will too was located there. Thus, the argument has an anti-Platonic edge, but its equation of the two functions concerned also runs counter to a division between distinct powers (δυνάμεις) along Aristotelian lines.

The second question to be answered also concerns Diogenes' first argument (8.40). Although it proved possible to adduce material from other sources elucidating the doctrinal framework to which Diogenes' syllogisms belonged, it is pertinent to ask what character and status they had as distinct arguments. Here we may take into consideration the suggestions made by Schofield concerning the nature of the syllogisms of Zeno of Citium, which share some of their problematic characteristics with Diogenes'.<sup>134</sup> At least some of these must have been extracted from written treatises of Zeno, which raises the question what their context may have looked like.<sup>135</sup> On this assumption Schofield formulates two interrelated conjectures: (i) their function may have been to conclude and summarize a more complex or more discursive piece of reasoning; and (ii) conversely, they may have been introduced to prepare us for a more elaborate—and in some ways more satisfying—exposition. There may be some evidence that the function of Diogenes' syllogisms could be described in similar terms. First, Galen ends with a grumble that the arguments he has dealt with are composed on the basis of<sup>136</sup> doctrines (δόγματα)<sup>137</sup> rather than from anatomical observation (8.51). Although Galen has dealt with

<sup>133</sup> See also *supra*, n. 23 and text thereto.

<sup>134</sup> Schofield (1983) 49 ff.

<sup>135</sup> Schofield (1983) 53 f. His other suggestions are made from the viewpoint of (a) Zeno's wish to render his teaching memorable and noteworthy, if not sensational (49 f.); (b) the supposed 'dialectical' character of the syllogisms (50 ff.); (c) their character as *proofs* (54 ff.).

<sup>136</sup> ἡ ἀρχὴ τῆς συστάσεως, literally 'beginning (source, foundation) of the construction' (De Lacy: 'starting-point'); cf. II 3.11 where συστάσιν also denotes the construction of arguments from certain fields of reference. Cf. VIII 1.8, p.482.6 (συντεθέντας).

<sup>137</sup> De Lacy renders 'opinions' but this is too loose: cf. *LSJ* s.v. and Galen, *De diaeta Hippocratis in morbis acutis* c.11 p.392.3 Westenberger (*CMG* V 9.1) = XIX p.220 K.

three arguments which probably do not derive from Diogenes, the latter's arguments have claimed his attention more than the others, and his remark comes just after his refutation of Diogenes' second syllogism. So Galen may be referring to physiological doctrines expounded in the context.<sup>138</sup> An exposition of this kind may have justified their premises. If so, the syllogisms were meant to summarize a full exposition rather than to carry conviction in isolation. Whether they served to introduce this fuller account or to conclude it does not seem to make much difference from this point of view.

#### 4.5. *Galen's Discussion: An Overall Evaluation*

In the foregoing I have attempted to reconstruct the doctrinal framework of the arguments quoted or paraphrased by Galen in *PHP* II 8. This had to be done at some length, because Galen withholds much information needed to reconstruct the original purport and context of these arguments. Some of the resulting difficulties may be resolved when Hellenistic medicine and its relations with Stoic physics have been explored further. But where does our discussion bring us with respect to Galen's mode of argument?

In suppressing data relevant to the context of the arguments of his opponents, Galen reflects the traditional practice of ancient philosophical polemics (cf. Plutarch in his anti-Stoic treatises). These omissions enable him to discuss the arguments from a rigorously logical and formal point of view familiar from the Aristotelian dialectical tradition. He objects to the premises of the arguments as being 'rashly assumed',<sup>139</sup> ambiguous or unclear,<sup>140</sup> 'inconclusive', and uses sometimes identifiable logical technical terms.<sup>141</sup> It is typical of his approach in this section that he disputes the truth of propositions by means of a simple rebuttal. Throughout the emphasis lies on the fact that Galen cannot *agree* rather than on the physiological reasons for his dismissal.<sup>142</sup> Thus at 8.43 Galen

<sup>138</sup> For an indication that Galen knew this original context see *supra*, n.3 with text thereto.

<sup>139</sup> See *supra*, n. 14 with text thereto.

<sup>140</sup> See *supra*, p. 77 f., 79.

<sup>141</sup> See *supra*, p. 88.

<sup>142</sup> See 31, p. 162.24 (συγχοροῦμεν), 26 (ὡς ὁμολογοῦμενον λαμβάνειν); 43, p.164.29 (ὁμολογοῦμεν); 45, p.166.6 f. (οὐδὲν ἐν γε τῷ παρόντι φήσομεν ἀμφισβητεῖν, cf. *infra*, n. 154 with text thereto); cf. also (just before a lacuna) 46, p.166.10: ἐξ αἵματος μὲν ὁμολογοῦντες <...>.

says he *assents* (ὁμολογοῦμεν) to the view that the beginning (principle) of movement is sent from the head. Here as elsewhere, the granting of one proposition merely enables Galen to concentrate on the dismissal of another. Since agreement is required, a simple reminder of an existing controversy on a particular proposition suffices to rule it out of court.<sup>143</sup> Thus the Peripatetic and Stoic views under discussion are opposed to Hippocratic ones (8.34, 35, 39). Diogenes, Empedocles and Critias are lumped together as entertaining one and the same view and then played off against Cleanthes, Chrysippus and Zeno (8.47-8). Diogenes of Babylon is said to have caused a 'peculiar' controversy or dispute (ἀμφισβήτησις<sup>144</sup>), that is to say, his position is idiosyncratic (8.43).

Galen has abandoned his scrutiny in terms of perceptible attributes, which provides his frame of reference in the preceding sections from II 4.5 onward. This difference between the closing section and the preceding ones is touched upon by Galen in his concluding remark (8.51):

Having promised to discuss the clearly observable properties of the heart (τῶν ἐναργῶς φαινομένων ὑπάρχειν τῇ καρδίᾳ) in this book, why, then, must I be further concerned with arguments such as these, which are framed on the basis of doctrines (δόγματα), not of anatomical observation (τὸ φαινόμενον ἐκ τῆς ἀνατομῆς) ?

Accordingly, the preceding Stoic and Peripatetic arguments are based on mere school-doctrines (δόγματα)<sup>145</sup> as opposed to observable attributes (ὑπάρχοντα). Thus, according to his fourfold distinction between kinds of premises, the arguments under discussion are not scientific or dialectical but rhetorical, i.e. based on external factors such as authority. One could add that insofar as they depend on ambiguous terms, they also qualify for the fourth or sophistical class.<sup>146</sup> Strictly, then, the arguments discussed at 8 fall outside the programme initially stipulated for *PHP* II, which was to deal with arguments based on perceptible attributes alone.<sup>147</sup>

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<sup>143</sup> On agreement, conflicting dogmas and 'history' (i.e. written accounts) cf. *Subf. Emp.* VIII, pp. 67-9 Deichgräber: agreement (concordia = συμφωνία ?) between a sufficient number of men, or between recognized authorities, concerning perceptible things commands trust. We may infer that the conflict between their accounts leaves the truth of the matter undecided and calls for personal observation and research; cf. *Exp. Med.* 24, p. 134 Walzer.

<sup>144</sup> Cf. Arist. e.g. *EN* 1100a18; *Rh.* 1417a8.

<sup>145</sup> Cf. also *supra*, pp. 16, 18, 23

<sup>146</sup> See also *supra*, p. 17 f.

<sup>147</sup> Cf. *supra*, p. 16.



Apparently, this special class of arguments calls for a special type of discussion with the emphasis being placed on the aspects of assent and disagreement.

But it seems odd to argue that these arguments have no empirical basis. It seems arbitrary too; elsewhere Galen is not reluctant to subject such 'scientific' arguments to an extensive treatment in terms of perceptible attributes.<sup>148</sup> So why this change of attitude? At *PHP* II 2.5, Galen envisages a kind of contest aimed at determining for whose side—Chrysippus' or his—a majority of 'rhetorical' witnesses (i.e. poets and other traditional authorities) speak. He chooses to postpone such an argument until another occasion, turning to arguments based on perceptible attributes instead. But he does not preclude such a type of discussion in principle and in book III 2 offers something of the sort when he presents a great number of poetic statements (all derived from Chrysippus) as speaking equally well in favour of the Platonic view.<sup>149</sup> He refers to Plutarch as demonstrating in his (lost) *Homeric Studies* (Ὁμηρικῶν μελετῶν) that the poets bear witness to all doctrines (δόγμασιν), that is, including conflicting ones (III 2.18-19). As far as the poets are concerned the issue remains undecided. In fact, their conflicting statements merely serve to signal an existing controversy.

In chapter 8, too, as we have seen, the idea of disagreement between tenets (or its opposite) is prominent, although we are dealing here with philosophers and scientists rather than poets. Claims on contentious issues should be properly demonstrated, and so we find Galen objecting to many of them as *unproved*. His opponents take for granted something which stands in need of (empirical) examination.<sup>150</sup> Their claims based on the supposed mechanism of the digestive process, are a case in point. But Galen declines to refute them by presenting a physiological account of his own. This was planned for the separate book (viz. III), devoted to the Platonic appetitive part as residing in the liver.<sup>151</sup> On the other hand, he cannot remain silent on the arguments at issue, because they are concerned with the seat of the intellect—the subject of

<sup>148</sup> E.g. the Stoic speech argument, which is largely based on Praxagorean physiology, see *supra*, pp. 42 f., *infra*, pp. 143 f., 189.

<sup>149</sup> On Galen's view of poetic witnesses, see further Tieleman, *Galen and Chrysippus On the Passions*, forthcoming.

<sup>150</sup> II 8.31, 34, 37.

<sup>151</sup> See 8.50 and *supra*, n. 23.

book II—and apparently were powerful enough to prompt a response on his part.

But Galen's mode of argument is not merely 'negative' in the sense that it is primarily designed to avoid certain points. His method of clarifying issues prepares the ground for the discussion of the liver (which is eventually given in book VI instead of III<sup>152</sup>). This method, aimed at establishing agreement or signalling its opposite, is also applied at the outset of his inquiry in regard to the term ἡγεμονικόν (II 3.4): is its meaning agreed upon or disputed? In ch. 6 he raises the same question with regard to the terms 'first' and 'pneuma'. In exposing the ambiguity of these terms he charges his opponents with glossing over a contentious point that stands in need of examination. To avoid this error, a preliminary and correct division (διαίρεσις) of the possible meanings of the terms used is required in order to find a suitable (i.e. generally accepted) *starting point* (ἀρχαί) for inquiry.<sup>153</sup> But in ch. 6 not only terms but also propositions and hence more complex concepts are treated in a similar fashion: demonstration proceeds from accepted statements to the solution of controversial ones. Hence Galen also raises the question of whether or not the premises used are agreed. This preliminary procedure is traditional; it is found, most notably, in Clement of Alexandria's account of dialectical method.<sup>154</sup>

To conclude. The final section (ch. 6) is a bit marginal to the main body of *PHP* book II. But this primarily concerns its subject-matter. Its method, it has turned out, does belong with that applied in the rest of the book. In this and the foregoing chapters, the traditional background against which this method should be studied has been illustrated by a number of references to such Platonist sources as Alcinous' manual and Clement, *Stromateis*

<sup>152</sup> See *supra*, Ch. 3.6.

<sup>153</sup> This type of division is one of the forms recognized at *PHP* IX 9.44, a scheme drawn from a scholastic handbook; see *infra*, p. 117; cf. *supra*, p. 28 n. 85. On Galen's use of conceptual analysis see further Hankinson (1994) esp. 178 ff., who however does not take the scholastic background into account.

<sup>154</sup> Clement, *Strom.* VIII ii. 3.1-4 (one should make sure that one uses terms in their commonly accepted [ὁμολογούμενον] meaning); cf. 4.1-3 (one should use commonly accepted definitions); and iii 5.1-3: demonstration (ἀπόδειξις) proceeds from what is agreed upon (ὁμολογούμενον) to what is contentious (ἀμφισβητούμενον). Clement's use of the opposites ὁμολογούμενον/ἀμφισβητούμενον here runs parallel to Galen's. On the so-called last book of Clement's *Stromata*, see *supra*, p. 20 n. 47.

Book VIII in particular. It is now time to supplement our picture of Galen's historical affiliations by comparing such argumentative techniques as were stipulated by Aristotle, notably in his *Prior Analytics* and *Topics*, and further developed in the tradition concerned with dialectical topics.

## CHAPTER FIVE

### THE TRADITIONAL BACKGROUND

#### 5.1. *Two Passages from the Prior Analytics*

Galen had used the *Prior Analytics* and the other treatises of the Aristotelian *Organon* for his *On Demonstration*.<sup>1</sup> The methodology he had expounded in that work in turn underlies *PHP* II.<sup>2</sup> But unlike the *Posterior Analytics*, *Topics*, *Rhetoric*, and *Sophistical Refutations*, the *Prior Analytics* is not mentioned in the context of his fourfold classification of premises, presumably because the *APr* was held to be concerned with the construction of syllogisms in general rather than with one particular kind. As such, its subject-matter was generic vis-à-vis the kinds of arguments treated in the other treatises.<sup>3</sup> As will be shown, there are distinct correspondences between Galen's procedure of finding or selecting appropriate premises and a few passages from the *APr*. Here as elsewhere the exegetical tradition has to be taken into account in explaining the way in which Galen read the passages concerned. I shall here discuss two instances. The first is *APr.* A 27, where Aristotle is concerned with the 'provision' (ἐνπορήσομεν) of syllogisms and the method for selecting 'principles', i.e. premises and their terms, appropriate to each particular problem (43a20-4). This method is further specified at 43b1-11:

We should select the premises with regard to each problem in the following way: we must lay down the subject and the definitions and the properties (ἴδια) of the thing; next we must lay down the attributes which follow the thing, and again those which the thing follows, and those which cannot be attributed (ὑπάρχειν) to it. [...] Of the attributes which follow we must distinguish between those which fall within the definition (ὅσα τε ἐν τῷ τί ἐστὶ) and those which are predicated as proper (ἴδια) and those which are predicated as accidents (συμβεβηκότα), and of the latter we must distinguish those which apparently (δοξαστικῶς) and those which really

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<sup>1</sup> See Barnes (1991) 68, who—*pace* Von Müller (1897)—is surely right to insist that the *Dem.* was based not only on *An. Post.* but on the *Analytics* as a whole.

<sup>2</sup> See *supra*, p. xiv.

<sup>3</sup> Cf. *supra*, p. 34.

(κατ' ἀλήθειαν) are attributes (ὑπάρχει). The larger the supply (εὐπορίῃ) one has of these, the more quickly will he reach a conclusion; and in proportion as he apprehends those which are truer, the more cogently will he demonstrate (rev. Oxford transl., slightly modified).

Galen works with the same types of attributes as those distinguished in this passage. He begins with a definition of the essence of the regent part (*PHP* II 3.4) and then turns to the attributes (ὑπάρχοντα) of the heart (*ibid.* 4.5-6), distinguishing those which pertain to essence<sup>4</sup> and those which do not (4.3; cf. III 1.4). In the discussion which follows (4.6 ff.) he avails himself of Aristotle's further distinctions: definition versus property; property versus accident; accident versus non-accident (or: non-attribute). As we have seen, he opposes being and property with regard to his inquiry into the appetitive part of the soul (*PHP* VI 3.3, συμβεβηκότα ἰδίᾳ).<sup>5</sup> He calls a particular state of the heart a mere accident (ἀπὸ συμβεβηκότος); that is to say, insofar as it is opposed to a state that is proper to it (II 8.18) which would indicate the heart's essence, or function.<sup>6</sup> He often exposes the observations of his opponents as non-attributes, or things which are not the case (οὐκ ὑπάρχοντα) (II 4.16, I 8.8).<sup>7</sup>

The attributes definition, property and accident according to *APr.* A 27 are identical with three of the predicables familiar from the *Topics*. In fact, the latter work is expressly referred to at *APr.* A 30, which continues Aristotle's explanation of the procedure in terms of ὑπάρχοντα (see below). The relation of these sections of *APr.* to the *Topics* must also have been clear to later Peripatetics<sup>8</sup> and others who studied these treatises. It is likely to have stimulated the blending of topics and syllogistic.<sup>9</sup> It is therefore a reasonable assumption that the Aristotelian *Topics* and the ancient exegetical tradition connected therewith may have influenced Galen's procedure as well (see below, § 5.2). Galen, in introducing his list of attributes (*PHP* II 4.5-6), announces a dialectical procedure in terms of predicables and topics which Peripatetics and others could easily recognize.<sup>10</sup>

<sup>4</sup> See *supra*, p. 14.

<sup>5</sup> See *supra*, p. 56.

<sup>6</sup> See *supra*, p. 53.

<sup>7</sup> See *supra*, pp. 40, 48; cf. 102.

<sup>8</sup> For Galen's relations with the Peripatetics, see *supra*, p. 5 n. 14.

<sup>9</sup> See *supra*, p. 33 n. 110.

<sup>10</sup> The ὑπάρχοντα also feature as a generic term embracing the predicables at Alex. Aphr. *In Top. II Proœmium*, p. 127.17 ff. Wallies.

I now turn to *APr.* A 30, where Aristotle is concerned with techniques for organizing the data of experience in such a manner that they can be used as starting-points in a demonstration.<sup>11</sup> Although this passage is a bit long, it is worth quoting in full (46a3-30):

The method is the same in all cases, in philosophy and in any art (τέχνην) or study (μάθημα). We must look for the attributes (τὰ ὑπάρχοντα) and the subjects (οἷς ὑπάρχει) of both our terms, and we must supply (εὐπορεῖν) ourselves with as many of these as possible, and consider them by means of the three terms, refuting (ἀνασκευάζοντα) statements in one way, establishing (κατασκευάζοντα) them in another, in the pursuit of truth starting from a list of the attributes in accordance with the truth (ἐκ τῶν κατ' ἀλήθειαν διαγεγραμμένων ὑπάρχειν), while if we look for dialectical deduction we must start from plausible (κατὰ δόξαν) propositions [...]. In each [scil. science] the principles which are peculiar to it are most numerous. Consequently it is the business of experience (ἐμπειρία) to give the principles which belong to each subject. I mean for example that astronomical experience supplies the principles of astronomical science; for once the phenomena (φαινομένων) were adequately apprehended, the demonstrations (ἀποδείξεις) of astronomy were discovered. Similarly with any other art or science. Consequently, if the attributes (τὰ ὑπάρχοντα) of the thing are apprehended, our business will then be to exhibit readily the demonstrations. For if none of the true attributes of things had been omitted, we should be able to discover the proof and demonstrate everything which admitted of proof, and to make that clear whose nature does not admit of proof.

Thus we have explained fairly well in general terms how we must select propositions; we have discussed the matter in a precise way in the treatise concerning dialectic<sup>12</sup> (rev. Oxford transl., modified).

Obviously, Aristotle's injunction to draw up a list of ὑπάρχοντα<sup>13</sup> is followed by Galen (*PHP* II 4.6). But there is more. Aristotle stipulates a close connection between constructive argument and refutation,<sup>14</sup> prescribing the syllogistic form (note the 'three terms'). This too is characteristic of Galen's procedure in *PHP* II although, importantly, he has removed the δόξαι or ἔνδοξα from it.<sup>15</sup> On several occasions, he reforges or supplements these arguments to form syllogisms.<sup>16</sup>

<sup>11</sup> On *An. Pr.* A 30 see Owen (1961) 84 ff. Evans (1978) 32 f.

<sup>12</sup> i.e. the *Topics*.

<sup>13</sup> Cf. the beginning of the discussion at *De an.* A 2.403b 24 f. Cf. *supra*, p. 18 n. 39.

<sup>14</sup> In addition cf. 46a13 ff., omitted from the above quotation; the terms 'κατασκευάζοντα' and 'ἀνασκευάζοντα' also echo the language of the *Topics*.

<sup>15</sup> See *supra*, pp. 18 ff.

<sup>16</sup> Cf. *infra*, pp. 69 f.

Aristotle's empiricist attitude and concern with the special sciences in this section will not have been lost on Galen.<sup>17</sup> Yet the difference between the two thinkers with regard to the status of plausible opinions (i.e. the *ἔνδοξα*) becomes apparent. Aristotle's reference to the *Topics* at the end of the section is most naturally taken to pertain both to the procedure on the basis of plausible opinions and that on the basis of true attributes. That is to say, both are involved throughout the account of the method to be followed by the arts and sciences.<sup>18</sup>

But Aristotle is not very clear on the role of the *ἔνδοξα* in the special sciences. On the other hand he emphasizes the value of experience and the phenomena. It seems a fair assumption that a reader with Galen's preferences and background would take special interest in this aspect. In that case he may also have interpreted Aristotle's reference to experience and the phenomena (46a18-20) in such a way that it takes up the true attributes mentioned in the preceding context (46a8). Aristotle's actual practice may have confirmed him in this interpretation. The attributes *qua* empirical phenomena are central to his biological investigations, whereas the *ἔνδοξα* are more at home in ethics or such discussions as that on the *principia physica* in the *Physics*.<sup>19</sup> Galen tends to consider Aristotle's method from the viewpoint of his interests as a medical scientist, and he may have taken *APr.* A 30, as well as the biological works, to have supported a concept of method which made experience basic (though not sufficient). This may also help explain his reticence about his difference from Aristotle concerning the *ἔνδοξα*. As we have seen, he may not have been the first to adapt Aristotelian dialectic in this manner.<sup>20</sup>

But Galen did not read Aristotle in an intellectual vacuum. His readings will have been coloured by current and traditional exegesis. With regard to *APr.* A 30 one should compare Alexander, *In APr.* pp. 330.31-333.6 Wallies, who highlights the same elements

<sup>17</sup> Cf. Alex. Aphr., *In Arist. An. Pr.* 330.35 Wallies, who, among others, lists the physician as an example of those to whom Aristotle's remarks pertain.

<sup>18</sup> The beliefs of the 'wise', or the experts, which may provide material for dialectical discussion, also include 'views' (*δόξαι*) which belong with the "arts" (*τέχναι*); see *Top.* A 10.104a15, 33 ff. Aristotle exemplifies this by reference to the doctor and the geometrician.

<sup>19</sup> For ways in which, in Aristotelian thought, it is possible to relate the *ἔνδοξα* to the special sciences see Owen (1961) 91.

<sup>20</sup> See *supra*, pp. 22 ff.

from Aristotle's account as are found in Galen's summary of the correct method (II 3-4.6). Moreover, those notions which Alexander refers to but are absent from Aristotle's text can also be paralleled from Galen. Thus Alexander, like Galen, distinguishes between demonstrative (ἀποδεικτικοί) and dialectical syllogisms, emphasizing the *appropriate* (οἰκεῖα) nature of the former kind. And, like Galen (II 3.12), he informs his readers that the *Posterior Analytics* deals with the selection of the former kind and the *Topics* with the latter (p.331.19 ff. W.).<sup>21</sup> The latter point deviates from Aristotle's text, where, as we have seen, only the *Topics* are referred to. Further, Alexander's explanation of 46a26-7<sup>22</sup> by reference to the 'principles', definition and the general axiom (p.332.29 ff. W.) runs parallel to Galen's account (II 3.4-7).<sup>23</sup>

No doubt the similarities, both of doctrine and language, between Galen and Alexander point to a similar reading of Aristotelian treatises concerned with the theory of science, or methodology.<sup>24</sup> It is a fair assumption that they also reflect a common line of tradition—with the important qualification that Galen deviates from Alexander and the exegetical tradition with regard to the nature and status of the ἐνδοξα (cf. Alexander, *ibid.* p.331.21 f. W.).<sup>25</sup>

## 5.2. *The Tradition of Dialectical Topics*

We know comparatively little about the ancient exegetical tradition concerned with Aristotle's *Topics*, which stretches from his immediate successors to Themistius (c. 317-388 CE) and Boethius (c. 480-524 CE). Any comprehensive study of this tradition involves the mutual relations between philosophy and rhetoric: starting with

<sup>21</sup> Cf. however p.332.37 ff. mentioning only the *Topics*. So at p.331.22 ff. Alexander may not want to specify Aristotle's reference at 46a28-30 at all. But the fact remains that he draws the same distinction as Galen. Aristotle meant to refer to the whole of the *Topics*, and to no other treatise; see Evans (1977) 32 f., arguing against Ross *ad loc.*, who, like Alexander at p.331.22 ff., thinks that Aristotle had meant the reference to include the *Posterior Analytics*.

<sup>22</sup> 'For if none of the true properties of things had been omitted, we should be able ... to make that clear, whose nature does not admit of proof.'

<sup>23</sup> In addition see Alexander's remarks on p.6.26 ff. on the discovery of appropriate premises, and on (p.7.8 ff.) their classification in three main kinds; on this passage cf. *supra*, pp. 21, 34.

<sup>24</sup> For other points on which the two authors may be taken to reflect current Peripatetic doctrines and arguments, see *infra*, pp. 73 ff.

<sup>25</sup> See *supra*, pp. 18 ff.



Aristotle's *Topics* and *Rhetorics* philosophical dialectic and rhetoric shared an interest in (partly the same) topics, and from an early date there were tendencies towards convergence in both disciplines. However, the picture presented by the textual evidence is lacunose. We are dealing, then, with a vast and complicated subject. The following observations, I want to stress, are not intended as an exhaustive account of Galen's relation to the tradition or traditions involved.

Cicero's *Topics*, Alexander's commentary on the *Topics* and Boethius' *In Ciceronis Topica* and *De Topicis Differentiis*<sup>26</sup> provide most of the evidence with which we may identify at least part of the scholastic and literary backdrop of Galen's methodology.<sup>27</sup> In particular, Boethius' work is a basin into which various streams of tradition have come together and hence offers much of value for our purposes.<sup>28</sup> But we start from Cicero's *Topics*, which is our earliest complete witness for the tradition in question (July 44 BCE). It is not clear exactly how Cicero conceived of the relation of his tract to Aristotle's work of the same title, to which it bears little resemblance. But we may take it that the tract was not intended as a summary or commentary of Aristotle's work. Rather Cicero is concerned with what he sees as topics (i.e. the art of finding arguments) in the *tradition* or *style* of Aristotle.<sup>29</sup> The gap separating

<sup>26</sup> For historical surveys of the post-Aristotelian tradition of dialectical topics see Stump (1978) 205 ff. Ebbesen (1981) 81-126; Ebbesen (1982); see now also Van Ophuijsen (1994), who concentrates on the relation between the dialectical and rhetorical traditions, concluding that the latter was on the whole on the receiving end.

<sup>27</sup> I note here that a preliminary survey of the works in question has revealed relatively few points of contact between Galen and Alexander's commentary mentioned in the text as compared with the other sources adduced.

<sup>28</sup> See the introductory sections in Stump (1978) and (1988) as well as J. Barnes, 'Boethius and the Study of Logic', in M.T. Gibson (ed.), *Boethius: His Life, Thought and Influence* (Oxford 1981) 73-89; J. Shiel, 'Boethius' Commentaries on Aristotle', in Sorabji (1990) 349-372; S. Ebbesen, 'Boethius as an Aristotelian Commentator', in Sorabji (1990) 373-392.

<sup>29</sup> Some confusion has arisen because of what Cicero says in the covering letter belonging with his *Topica*, viz. *Ad fam.* 7.19: *ut primum Velia navigare coepi, institui topica aristotelea conscribere*. The expression *topica aristotelea* has often been taken to refer to Aristotle's treatise and 'conscribere' to mean 'summarize'. However, this verb cannot bear this sense and the term 'topica' can be taken to pertain to the *subject-matter* common to Cicero and Aristotle; cf. Stump (1978) 21, who argues that Cicero deliberately avoids the ambiguous Latin equivalent 'loci' (carefully explained later on at §§ 6-7). At *Top.* 1 Cicero recalls that while in his library he and Trebatius hit upon what are somewhat vaguely referred to as 'certain Topics of Aristotle, which were

the two works merely confirms that the post-Aristotelian exegetical tradition is involved. The question of Cicero's source or sources has been the subject of speculation. As usual, Antiochus of Ascalon has been proposed as a candidate.<sup>30</sup> Alternatively, the tract has been derived from Theophrastus via Andronicus of Rhodes.<sup>31</sup> Furthermore, the rhetorician Hermagoras of Temnos (fl. mid-2nd c. BCE) has been identified as the source for the final part dealing with *quaestiones* and *causae* (§§ 79-100).<sup>32</sup> The available evidence does not however seem capable of settling the issue in one way or other. Here as elsewhere *Quellenforschung* in the positivistic mode easily slips into the exercise of explaining *obscurum per obscurius*. Meanwhile it remains feasible to think in terms of a tradition rather than specific sources, and to adduce such testimonies as can be presumed to derive from this tradition.<sup>33</sup>

Few would regard the *Topics*—addressed to the lawyer Trebatius—as a profound philosophical work.<sup>34</sup> On the whole Cicero's

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expounded by him in several books' (*Aristotelis Topica quaedam quae sunt ab illo pluribus libris explicata*; cf. § 3, *haec, ut opinor, Aristotelis*). Cicero goes on to stress the difficulty of Aristotle's work and announce that he will teach the lawyer Trebatius the *disciplinam inveniendorum argumentorum* (§ 4). We may be dealing here with manoeuvres on Cicero's part intended to camouflage his own imperfect acquaintance with the contents of Aristotle's relevant treatises, as is suggested by Van Ophuijsen (1994) 148 n.141. Thus while referring to Aristotle, Cicero puts himself in a position to present a simplified account tailor-made to Trebatius' forensic concerns and inspired by the post-Aristotelian tradition. His story (§ 5) that he wrote the tract without the aid of books while sailing from Velia to Rhegium (i.e. within a few days) may well be part of this strategy and should not be taken at face value. Anyway it should not lead us into discounting traditional elements, as is confirmed by parallels from other authors; cf. Huby (1989) 61 f., who stresses Cicero's possession of a well-trained memory. Cf. also P. Thielscher, 'Ciceros Topik und Aristoteles', *Philologus* 67 (1908) 52-67.

<sup>30</sup> As early as Wallies (1879) esp. 42 ff. Dillon (1977) 102 ff. comparing Cic. *Ac. Post.* 32, presumably too tenuous a basis for attribution; cf. Huby (1989) 74 f. n.21, who should however not have said that 'it is not a list that is designed for, or very suited to, scientific enquiry'.

<sup>31</sup> Ebbesen (1981) 111 f. comparing Cicero's list (*Top.* 8-23) with Themistius' classification of topics *ap.* Boethius, *Top. diff.* II, 1186D-94B; III, 1300B); Themistius, he argues, probably used Theophrastus directly. For Cicero, see further *Top.* 71-2; *De orat.* 2.163-73; *Partitiones Oratoriae* (a tract whose authenticity has been questioned) 6-7.

<sup>32</sup> Huby (1989) 63.

<sup>33</sup> On this methodological point in general cf. J. Mansfeld, 'Sources', chapter in J. Barnes *et al.* (eds.), *The Cambridge History of Hellenistic Philosophy*, forthcoming.

<sup>34</sup> On its nature see B. Riposati, *Studi sui Topica di Cicerone*, Pubbl. Univ. del Sacro Cuore 22 (Milano 1947). Its conclusion (pp. 285-299) is also available in German translation as 'Zusammenfassende Betrachtung über Ciceros

interest lies more with the application of topics to forensic argumentation than with theoretical foundations. Accordingly, he uses legal examples, most of which he is likely to have devised himself.<sup>35</sup> In the introductory chapters we find nonetheless some general observations which are of particular value for our purposes (6-8). The main body of the tract is concerned with individual topics (9-78) as well as traditional question types (79-100).<sup>36</sup> This approach imposes certain limitations on the possibility of comparing other treatises presumably related to the same tradition. Yet comparison with passages in *PHP* remains feasible.

First of all, we must note a number of points of contact between the introductory sections *Top.* §§ 6-8 and *PHP* II 3-4.6. Cicero argues that the science of discourse encompasses two parts, one concerned with the invention (*inveniendi*) and another with the evaluation (*iudicandi*) of arguments. Aristotle is credited with instigating both branches. The Stoics, by contrast, pursued solely the second one, which they call dialectic (διαλεκτική),<sup>37</sup> while utterly neglecting the art of finding arguments called topics (τοπική), though it is more useful and naturally prior.<sup>38</sup> Cicero announces that he will here confine himself to topics and tackle the subject of evaluation in another treatise.<sup>39</sup> Prior to his account of the main kinds of *loci*, he explains the use of topics as well as the term itself (viz. metaphorically as the 'seats' (*sedes*) or places (*loci*) from which arguments are drawn).

In Galen's account of the different kinds of arguments, the

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<Topica>', in: B. Kytzler, *Ciceros literarische Leistung, Wege der Forschung* CCXL (Darmstadt 1973) 421-439. See further Stump (1978) 20 ff. 212 f. Huby (1989). P. MacKendrick, *The Philosophical Books of Cicero* (London 1989) 223-31.

<sup>35</sup> But on occasion he refers to the philosophers, especially in connection with those 'loci' which he believes are more appropriate to them: see 41, 42, 53, 56, 65, 67.

<sup>36</sup> On this section see Mansfeld (1990b) 3193 ff.

<sup>37</sup> The same observation is made at *De or.* 2.157-9 with respect to Diogenes of Babylon.

<sup>38</sup> This post-Aristotelian term could be a back formation from the Latin *Topica* or be short for ἡ τοπικὴ πραγματεία, see Van Ophuijsen (1994) 1674 n.257. Of course, the distinction made here is un-Aristotelian, see *infra* in text.

<sup>39</sup> Cicero never came round to such a separate treatment; but given the illusory nature of his concept of dialectic one may well wonder if this project would have been feasible at all, quite apart from the fact that he was murdered soon after writing the *Topics*. He does not uphold this distinction between the provinces of dialectic and rhetoric in other works or for that matter in the *Topics* itself, see in text.

following correspondences to this Ciceronian passages may be pointed out. Like Cicero, Galen castigates the Stoics for their failure to provide a proper methodology: Chrysippus gives us no method or training (οὔτε μέθοδον οὔτε γυμνασίαν,<sup>40</sup> *PHP* II 3.8, 18 ff.).<sup>41</sup> He praises 'the ancients' for having explained how to find suitable premises, referring to the Aristotelian *Posterior Analytics*, *Topics*, *Rhetorics* and *Sophistical Refutations* (II 3.12-13) as dealing with each of his four kinds of premises respectively. Next he stresses the *utility* of having a method for distinguishing between kinds of premises (*ibid.* 13-22). Clearly, Galen is embroidering on traditional material with some stock views of his own, pointing to the example set by useful arts such as arithmetic as opposed to the useless parts of Stoic logic.<sup>42</sup>

The following points of difference are noteworthy. Unlike Cicero, Galen speaks of premises (λήμματα) rather than 'topics'.<sup>43</sup> Galen connects the aspects of discovery and evaluation as aspects of one and the same expertise, whereas Cicero, as we have seen, separates them as distinct fields. Their conjunction as skills in Galen (e.g. *PHP* II 3.13) is also implied by his actual procedure, which combines discovery and testing, constructive argument and refutation (see Ch. 3). Galen, of course, is more faithful to the original Aristotelian position, whereas Cicero's characterization of dialectic seems idiosyncratic.<sup>44</sup> But in parallel passages from other works we find Cicero again linking judgement and evaluation as part of the same art taught by Aristotle (*Or.* 45, *De or.* 163). Indeed, later on in the *Topics* too the demarcation between the two fields is dropped (cf. 53 ff.).<sup>45</sup> It would seem, then, that Cicero in his introductory section wants to bring out topics as a distinct field common to philosophers (or at least those following Aristotle) and

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<sup>40</sup> Cf. Arist. *Top.* A 101a27, mentioning γυμνασία as one of the uses of dialectic.

<sup>41</sup> See *supra*, p. 14.

<sup>42</sup> On arithmetics cf. also *supra*, p. 34.

<sup>43</sup> He merely refers to Aristotle's *Topics* as dealing with the class of dialectical premises (II 3.12).

<sup>44</sup> But cf. *Rh.* A 1.1355a8 f. on the consideration of syllogisms of all kinds as the business of dialectic. This is also implied by the *Topics* of course, cf. Van Ophuijsen (1994) 156 n. 202, who observes that Cicero's view of dialectic here is Stoic rather than Peripatetic. It may be more accurate to say that this conception is not so much Stoic in itself as reflecting a traditional and slanted depiction made by non-Stoics, as is also clear from the parallel in Galen.

<sup>45</sup> For more reflections around this facet see Van Ophuijsen (1994) 148 ff.

rhetoricians, thus enhancing the status of rhetoric. Now a classification of premises such as set out by Galen presupposes the evaluative approach. As he had excluded the latter from his account, Cicero has no longer any use for such a classification either.

Eleanore Stump, one of the prime authorities in this field, has argued that 'Topics', as the art of finding arguments, was increasingly used also for their evaluation in the later medieval continuation of the tradition.<sup>46</sup> But Galen's account of his method and actual procedure suggest that this use of topics is at least as old as the second century CE.

I now proceed to Cicero's distinction between kinds of topics (*loci*) (§ 8). We are told that of 'these topics (*loci*), in which arguments are included' some are

[A] inherent in the thing under investigation itself (*in eo ipso de quo agitur haerent*),

while others are

[B] brought in from outside (*assumuntur extrinsecus*).<sup>47</sup>

[A] is subdivided into four sub-species, viz. arguments

(a1) from the whole thing (*totum*)

(a2) from its parts

(a3) from its meaning (*notatio*)

(a4) from things which are in a certain way related to the subject (*Ex eis rebus quae quodam modo adfectae<sup>48</sup> sunt ad id de quo quaeritur*, cf. 11, 38)<sup>49</sup>

<sup>46</sup> Cf. Stump (1978) 25: 'In the discussion of the Topics after Boethius, there is a growing tendency to absorb the techniques of the art of finding into the art of judging, to make the Topics part of the method for judging the validity of arguments.'

<sup>47</sup> This may render the Greek phrase ἐξωθεν λαμβάνονται. Cf. Galen's use of the term λήμματα at II 3.9 and of the phrase λήμματα λάμβάνειν in the same context and parallel passages: e.g. II 2.2, p. 102.21; 4.1, p. 116, 12-13; 4.3, 116, p. 22; III 1.4, p. 168.15-16.

<sup>48</sup> *adfectae* Nettleship.

<sup>49</sup> Cf. *De oratore* II 163, where the formulation runs: *quippiam rem illam quod attingat*, which presumably renders ὅτι ἂν συμβεβήκη τῷ πράγματι. The same, or a similar, Greek phrase must underlie the parallel formulation at *Top.* 8 and 11; for the parallels in Galen, see below in text.

Cicero goes on to elucidate each of these types briefly with examples (8-24) and then the list is repeated with considerable amplification (25-78). At 8 no subdivisions of class [B] are given; at 24 the arguments belonging to it are explained as drawn from authority (cf. 72-3 and below).

Cicero's division into [A] and [B] is identical with Galen's initial classification of premises (λήμματα) at *PHP* II 3.9. To bring out the verbal similarity between the two passages I give Galen's Greek: τὰ μὲν ἐπιστημονικὰ λήμματα πρὸς τὴν οὐσίαν ἀναφέρεται τοῦ ζήτουμένου<sup>50</sup> καὶ τοῦτον ἔχει τὸν σκοπόν· τῶν δ' ἄλλων ἀπάντων ἕξωθεν ... (p.110.23-25). With regard to class [A] Cicero, unlike Galen, does not speak of 'essence', but of 'the subject at issue itself' (*de eo ipso de quo agitur*; cf. similarly 72). But elsewhere Galen again conforms to the Ciceronian list (κατ' αὐτὸ τὸ προκείμενον τε καὶ ζητούμενον, *PHP* II 4.3; see further below). Cicero does explain (a1) as pertaining to definition, viz. of the essence of the thing denoted by the term (§ 26, *definitio est oratio quae id quod definitur explicat quid sit*. Cf. § 9).<sup>51</sup> Even more clearly in line with Galen is the parallel passage in the *De oratore* II 163 (written in 55 BCE, eleven years before the *Topics*), where Cicero with respect to the same class of arguments (i.e. [A]) speaks of arguments derived from the 'force' and 'nature' of 'that which is taken up in a speech' (the sub-divisions given coincide with *Top.* 8 too).<sup>52</sup>

Before considering the individual (types) of *loci* listed under [A], we should observe their division as such. Ebbesen has called attention to its close similarity to what he calls the Peripatetic classification of types of division (διαίρεσις) found in several

<sup>50</sup> Cf. in the parallel passage at III 1.4, p. 168.15: κατὰ τὴν τοῦ προβλήματος οὐσίαν

<sup>51</sup> Class (a1) also appears as the *Differentia a substantia* (i.e. from essence) in Boethius' overview of Themistius' classification, *Top. Diff.* III 7.2 Nikitas (PL 1203A).

<sup>52</sup> *Quid enim est, in quo haereat qui viderit omne quod sumatur in oratione aut ad probandum aut ad refellendum aut ex sua sumi vi at que natura aut assumi foris? Ex sua vi, cum aut res quae sit tota quaeratur, aut pars eius aut vocabulum quod habeat aut quippiam, rem illam quod attingat; extrinsecus autem, cum ea, quae sunt foris neque haerent in rei natura, colliguntur.* I fail to see wherein resides the inconsistency signalled by Ebbesen (1981) 108 between the two tracts with regard to the relation between [A] and its subspecies. At 164-72 the latter are briefly explained and the account of topics ends with the explanation of extrinsic ones as based on authority (173). For another account of *loci* see the *Partitiones oratoriae* 6-7, which is however of doubtful authenticity and quality; cf. Huby (1989) 73 n. 3.

sources, dating for the most part from late antiquity.<sup>53</sup> But it can also be paralleled from *PHP* IX 9.43-44.<sup>54</sup> Here, in the context of a discussion of the Platonic tripartition of the soul, Galen thinks it necessary to explain the different senses of the term διαίρεσις as used by the dialecticians. This is meant to drive home the point that in none of the recognized senses can a psychic part, as a distinct being (οὐσία), be divided into its powers (δυνάμεις). There are divisions of

- (1) the whole into the parts;
- (2) the genus into species;
- (3) words into their meanings;
- (4) natural substances into unqualified matter and form;<sup>55</sup>
- (5) natural substances into unqualified substance and its [attributes].<sup>56</sup>

Of particular relevance for *PHP* II is division according to type (4), which is implied by Galen's method of starting from attributes (II 4.6) in order to achieve a selection of essential ones.<sup>57</sup> Cicero's class (a1), or rather the definitional method it involves, seems relevant (see further below).

An account of division was a standard feature of the logical section of a general handbook. Thus, as we have seen, Alcinous in *Did.* ch. 5 distinguishes similar types of division (illustrated e.g. by

<sup>53</sup> Ebbesen (1981) 109, listing (p.124 n.11): (1) *per se*, (1.1) from genus into species; (1.2) from whole to parts; (1.3) from an equivocal word into its significates; (2.) *per accidens*; see Boethius, *Divis*; Ioannes Damascenus, *Dialectica* ed. fusior ζ ≈ ed. brevior ιβ'; Ammonius, *Intr.* 81-3; Blemmydes *Logica* c. 2, PG 142: 701-8; Sextus, *PH* II 213; cf. Moraux (1973) 129-30. With *PHP* IX 9.43-44 (see in text), compare also Alcinous, *Did.* 5.156, listing division of (1) genus into species; (2) of the whole into parts; (3) of a word into its meanings; (4) of accidents (συμβεβηκότα) into subjects (i.e. substrates, ὑποκείμενα); (5) of subjects according to accidents. The types of division are also reflected in Themistius *ap.* Boethius, *Diff. top.* II-III.

<sup>54</sup> Note also the close parallel—pointed out by Mansfeld (1992b) 330—between *Top.* 31 and *PHP* IX 9.44: both Galen and Cicero say that some people fails to distinguish the division of a substance into its parts from that of genera into species.

<sup>55</sup> 44, p. 608, 1.19-20: φυσικὰς οὐσίας ἐξ ὅλης ἀποίου καὶ εἰδους συγκείσθαι

<sup>56</sup> ἔκ τε τῆς ὑποκειμένης οὐσίας ἀποίου καὶ τῶν συμβεβηκότων αὐτῇ. According to Galen (*ibid.* 44) this sense is recognized only by some philosophers, who also call it analysis (ἀνάλυσις). See above 42, p.608.10-11 for a distinction between being or substance (οὐσία) and attribute (συμβεβηκός) as said of the parts of the soul. See further *supra*, p. 28 n. 85.

<sup>57</sup> See *supra*, pp. 28 ff.

the Platonic tripartition of the soul),<sup>58</sup> explaining this method (as well as analysis and definition) in terms of substance (οὐσία) and the attributes (τὰ δὲ συμβεβηκότα καὶ ὑπάρχοντα). For our present purposes, it is sufficient to note that the similarities between the accounts of division in Cicero and Galen indicate their dependence on a common tradition.<sup>59</sup>

Let us now take a closer look at the subdivison of [A] according to Cicero. To illustrate class (a1), Cicero at 26 ff. distinguishes between types of definitions: of existing vs. of only intelligible things (26-27), those proceeding through partition (*partitio*) vs. those proceeding through division (*divisio*) (28). The account of the latter two types is interrupted (28-9) by some highly interesting remarks about the method of definition (*est dicendum qui sit definitionis modus*):<sup>60</sup>

The ancients<sup>61</sup>, then, prescribe as follows: when you have taken all the attributes which the thing you wish to define has in common with other things, you should pursue [scil. the analysis] until its own distinctive feature (*proprium*) is produced, which cannot be transferred to another thing.<sup>62</sup>

Cicero illustrates this procedure by defining, in two steps, an inheritance as 'property which has come to one legally at the death of another'. Here 'property' is a common attribute, whereas 'legally' is the distinctive feature, that which is proper. Once again, we seem far removed from Galen's anatomical investigations, but the point about the listing of features and selecting of a property in order to achieve a definition of essence runs undeniably parallel to Galen's procedure.<sup>63</sup> Compare also what Cicero says at § 9 about the

<sup>58</sup> Not referred to by Ebbesen (1981); see *supra*, pp. 31 f.

<sup>59</sup> Cf. also the very short chapter περὶ διαίρεσεως at ps.Gal. *Philos. hist.* 14 (DG 607.1-5): words into meanings; wholes into parts; genera into species and (if we accept Diels' reconstruction of the text) of species into individuals, homonyms into differences (?), substance into accidents. See Mansfeld (1992b) 329, with further references.

<sup>60</sup> He says he will omit 'other kinds of definition', which are not at all relevant to the purpose of his tract—a distinct pointer that Cicero is now going to omit certain traditional things and will select material with a view to his forensic interests.

<sup>61</sup> For the use of this appellation cf. Galen, *PHP* II 3.12, referred to *supra*, p. 4.

<sup>62</sup> *Sic igitur veteres praecipunt: cum sumpseris ea quae quae sint ei rei quam definire velis cum aliis communia, usque eo persequere dum proprium efficiatur, quod nullam in aliam rem transferri possit.*

<sup>63</sup> Note that Cicero ends by remarking on the wide scope of the method: it



definition applied to the whole subject, i.e. (a1): it 'unfolds what is wrapped up, as it were, in the subject', indicating, it seems, the first stage of this definitional method, viz. the exposition of all the features inherent in the subject. This again recalls Galen's start from a list of attributes of the heart (II 4.6) as well as the traditional procedure of replacing 'the name by the definition' (scil. of essence) as enunciated in the *De methodo medendi* in particular.<sup>64</sup>

But we must also note a few real or apparent discrepancies between the accounts of Galen and Cicero. At II 3.10 Galen goes on to subdivide the 'external' premises into the dialectical, rhetorical and sophistical types—which division also constitutes a hierarchical order, each successive kind being further removed from essence (*ibid.* 10-11). This classification of arguments and premises is lacking from Cicero, which may be due to his selective approach to his material. The classification does turn up in his commentator Boethius (see below).

More importantly, Galen differs from Cicero in deriving dialectical premises from non-essential attributes (ὕπαρχοντα) of the subject under investigation. Though external, Galen says, they 'lie next' (*PHP* II 4.3) to the scientific ones, and the two classes are contrasted to the rest in virtue of their both being based on the attributes of the subject itself (*PHP* III 1.4; II 8.2). Thus the dialectical premises correspond to Cicero's class (a4). Moreover, Cicero's use of the label 'external' indicates the argument from authority, i.e. Galen's rhetorical class, and it definitely does not fit the latter's concept of dialectical premises (see below). The identification with Cicero's class (a4) is borne out by his account thereof (11-23). The features listed here might suggest that he has a wider class in mind (see esp. § 11). But no fundamental difference need be involved; rather it is the contexts that are wholly different, Cicero being interested in forensic applications, Galen in discussing bodily organs.<sup>65</sup> Nevertheless, a topic from Cicero's class (a4) can be paralleled from Galen's demonstration in *PHP* VI that the liver is the seat of desire, conducted, he expressly says, on the basis of 'proper attributes' (συμβεβήκοτα ἰδίᾳ, VI 3.2),<sup>66</sup> i.e. those which he

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is applicable to both definitions of what exists and of what is apprehended by the mind, 29, *ad fin.*

<sup>64</sup> See *MM* I p. 29 K.; cf. also *PHP* II 3.3-4, on which see *supra*, p. 24.

<sup>65</sup> Cf. my comments on *APr.* A 30 and its relation to Galen's procedure; *supra*, pp 108 f.

<sup>66</sup> Cf. *supra*, p. 56.

takes to indicate the essence of the thing under examination.<sup>67</sup> Cicero subsumes arguments from analogy (*similitudine*) under class (a4) (15; cf. 41 f. where he commends it for *philosophers* as well as orators). One of his main arguments here is from analogy (viz. between the venous system rooted in the liver and the morphology of plants, VI 4). Other topics belonging under (a2) bear comparison with Galen's method too. Arguably, arguments from difference (16), consequents (20), effects (23), comparison (23) are instantiated by some of his descriptive and experimental anatomical procedures.

Contextual factors, notably the fact that each of the two authors, selects what he deems necessary, probably also explain why Cicero's class (a2), concerned with parts of the subject under discussion (cf. *Top.* 10), cannot be paralleled from *PHP*. But it cannot be denied that we are dealing with a more fundamental difference when Cicero has his class (a3) consist of arguments from the subject's meaning (*nota*), i.e. etymology (cf. *Top.* 10), whereas Galen firmly confines etymology to rhetoric—an external type of argument, i.e. one belonging to class [B] according to Cicero's scheme.

As we saw, the qualification 'external' as a criterion of division is different in the two authors too. Yet the way they determine this notion remains worth comparing. Cicero says that [B] external arguments are 'widely separated' from the subject, taking the appeal to authority as characteristic of this class (24; cf. 72 ff.).<sup>68</sup> Galen at II 3.10 calls the dialectical class 'external' (ἐξωθεν), i.e. in regard to essence, lumping together this and the other non-demonstrative classes (i.e. the rhetorical and sophistical premises). But in two other, more informative passages (*PHP* III 1.4; II 8.2) he uses the same qualification in a way that agrees with Cicero's: here

<sup>67</sup> See *infra*, p. 61.

<sup>68</sup> At 24 Cicero makes clear that the extrinsic arguments are those called ἄτεχνοι by the Greeks (those pertaining to the subject itself being by implication co-extensive with the ἐντεχνοι) in accordance with the well-known distinction between various means of persuasion (πίστεις) laid down by Aristotle, *Rh.* A 2.1355b35. On the topos from authority, cf. *ibid.* B 23.1398b19 ff. ἄλλος <scil. τόπος> ἐκ κρίσεως περὶ τοῦ αὐτοῦ. See further Cicero's discussion, *Top.* 72-78. Cf. Boethius, *Diff. Top.* 1186D-94C *PL* (II 4.1-8.3 Nikitas), where rei iudicium features as the first item on the list of extrinsic topics and is explained by reference to the communis opinio and the experts (or wise, *sapientes*) in terms very similar to Arist. *Top.* A100b20 (quoted *supra*, p. 18), *ibid.* 1190C (II 8.3 Nikitas); cf. also Boethius' overview of the divisions of both Cicero and Themistius, *ibid.* 1204C (III 7.23 Nikitas), with Ebbesen (1981) 110.

it is the rhetorical arguments which are called 'external', or 'removed from the subject', these labels being associated with the appeal to authority.<sup>69</sup> This shift in the use of the notion of externality attests to the ambivalent status of the 'dialectical' premises in Galen's procedure. On the one hand they pertain to actual features of the subject under examination and as such are made part of the inquiry; but on the other hand this inquiry is aimed at discarding them as irrelevant to the subject's essence. While not external vis-à-vis the subject as a whole, they are external vis-à-vis its essence.

Using topics for the purpose of evaluation also runs counter to the position that was taken by Boethius about two centuries later. Yet the account from his *De topicis differentiis*<sup>70</sup> exhibits a number of notable similarities with Galen's procedure, in particular in regard to the structure of topical arguments. Boethius' versions of topics are called *Differentiae*<sup>71</sup> (*Top. diff.* II 3.13-4.3 Nikitas = PL 1186A-D), indicated by such brief expressions as 'from definition', 'from similars', etc. Boethius accepts twenty-eighty *Differentiae*, which partly overlap with Cicero's topics. Like Cicero, he divides them into intrinsic and extrinsic ones, but adds a separate class of intermediate ones from Themistius. From a *Differentia* so-called 'maximal propositions' (which may also be called topics) are derived. Maximal propositions are logical principles or axioms expressible as conditionals which are known *per se* (*Top. diff.* II 3.1-13 = PL 1185A-D).<sup>72</sup> They support the major premise of a syllogism; that is to say, the major premise represents an instance of the general principle expressed by the Maximal Proposition in question. But the *Differentia* is the main clue to finding an argumentative strategy: it helps to find the intermediate term linking the two terms of a dialectical problem; in other words, the latter terms are revealed as being linked the way terms in the conclusion of a syllogism are.

As in Cicero and Galen, the intrinsic *Differentiae* consist of various types of what Galen calls 'attributes' (ὑπάρχοντα) of the subject under scrutiny. But we also find in Boethius a few points of contact with Galen which are absent from Cicero's *Topics*. Galen, too, derives general axioms, which can also be expressed as conditionals,

<sup>69</sup> See *supra*, pp. 16 f.

<sup>70</sup> On Boethius' works see also *supra*, p. 111.

<sup>71</sup> I.e. *differentiae* of the genus 'maximal proposition', see Stump (1978) 178, 194-204.

<sup>72</sup> Cf. the account of Stump (1978) 180 ff. (maximal propositions), 194 ff. (*differentiae*).

from the attributes for the purpose of formulating syllogisms, though it is typical of him also to follow the reverse procedure of extrapolating a general axiom from an opponent's argument in order to determine whether the axiom is evident, or logically compelling. On this criterion, as we have seen, he decides whether or not the attribute from which the argument in question is derived is related to essence, that is to say, whether the argument is 'demonstrative' or 'dialectical'.<sup>73</sup> Boethius' *Differentiae* 'from definition' and 'from description' (*Top. diff.* II 6.1-8 Nikitas = 1187 C-D PL) seem to fit Galen's procedure.

What are we to conclude? Cicero's treatise, for all the limitations imposed by its author's particular point of view, provides important evidence for the tradition in question. For our purposes it is all the more important since it is earlier than *PHP* (in fact more by than two centuries). We may conclude that the close similarities between *Top.* 6-8 and *PHP* II 3-4 warrant the assumption that Cicero and Galen are dependent on the same tradition of, probably, handbook, or handbook-like, literature. On the other hand, we have noted that *PHP* II 3-4 (the fourfold distinction of premises) and Galen's procedure in the rest of book II bear comparison with much later specimens of the same tradition; this concerns aspects of the use of topics which are lacking in Cicero. This should not lead us to conclude that these features arose later than Cicero, namely between him and Galen. We have seen that there are grounds for suspecting that Cicero consciously omitted to deal with them, because they simply were outside his scope, notably the fourfold classification which is connected with the aspect of the evaluation of premises. It seems preferable, then, to think in terms of one underlying, complex tradition, which, though no doubt evolving in certain respects, is still recognizable in both Cicero and Galen, who select the material and adapt it to their very different needs.

The post-Aristotelian tradition of dialectical topics has been traced by scholars such as De Pater, Stump and Ebbesen.<sup>74</sup> On the basis of their work it can be summarized as the progressive narrowing down of the notion of a topic (τόπος) by eliminating its

<sup>73</sup> See *supra*, Ch. 3, *passim*.

<sup>74</sup> See N.J. Green-Pedersen, *The Tradition of the Topics* (diss. Copenhagen 1985); and the contributions of Stump and Ebbesen referred to *supra*, n. 26. Stimuli were already provided by F. Solmsen, *Die Entwicklung der aristotelischen Logik und Rhetorik* (Berlin 1929) 58 ff.

ambiguities: the prescriptive aspect it has in Aristotle is set up independently by Theophrastus under the name of precept (παράγγελμα), which comes to function as a principle. This is lifted from the sphere of what is 'accepted' (ἔνδοξα) into that of 'axiom' in a fairly strong sense by (it is presumed) Themistius and so via Boethius is 'absorbed' into the *consequentiae* of scholastic logic.<sup>75</sup>

If we assume that this charts the historical development fairly accurately, we may go on to ask how Galen fits into the picture. His distinctive use of axiomatic principles grounding syllogisms has been assumed to have stimulated a similar function of axioms in the tradition of topics. Since Posidonius took a similar interest in geometric axioms, and Galen actually refers to Posidonius in this connection, the influence of Posidonius, whether or not via Galen, has been postulated as well.<sup>76</sup> That Galen nourished the ideal of an axiomatized science is clear. However, his use of axioms in *PHP* II, which agrees with the function assigned by Boethius to 'maximal propositions', has so far not been taken into account. Does this finding lend further weight to the assumption of Galenic influence on this particular point? I think not. On the contrary, the correspondences between the two authors remain too general to demonstrate specifically Galenic influence.<sup>77</sup> Of course, Galen was taken seriously as a philosopher in later antiquity. And it is pertinent to point, as Ebbesen does, to Galen's (lost) treatise *On Proof-Finding* (Περὶ ἀποδεικτικῆς εὕρεσεως).<sup>78</sup> But he is never mentioned by Themistius or Boethius in this particular connection.<sup>79</sup> The correspondences between Galen and Cicero on the other hand indicate that they depend on a common tradition. The distinctive role of axioms or principles is lacking from Cicero's account. But already Theophrastus' concept of topics goes some way towards

<sup>75</sup> See Van Ophuijsen (1994) 138.

<sup>76</sup> See Ebbesen (1981) 116 f. *id.*, (1982) 113, 117 n. 35, where he considerably weakens this assumption, pointing to the absence of Galen from the relevant texts of Themistius. For Galen's dependence on Posidonius on points at issue here see also I. G. Kidd, 'Posidonius and logic', in J. Brunschwig (ed.), *Les Stoïciens et leur logique* (Paris 1978) 273-85, 277 f.

<sup>77</sup> As noted by Ebbesen, see previous n.

<sup>78</sup> *Lib. Prop. SM* II, p. 120 M., cited by Ebbesen (1981) 115; see *supra*, p. 37 n. 124 with text thereto.

<sup>79</sup> Themistius, though apparently recognizing him as a not wholly negligible philosopher, nourished a pronounced dislike for Galen, see *Simpl. In phys.* IV 4-11: CAG IX, pp. 573, 708, 718 (from Themistius); *Them. In phys.* IV 11: CAG V 2, pp. 144, 149 (from Alexander); IV 4, p. 114 with Nutton (1984) 34.

assimilating them to logical principles. With him a large part of what used to be a matter of topics is dealt with in terms of a branch of syllogistic—probably in consequence of the elaboration of the doctrine of hypothetical inferences.<sup>80</sup> All things considered, it seems more likely that Galen did not contribute to the tradition but rather reflects it, and does so to a large extent.

We may believe that Theophrastus took several steps that were to determine the subsequent development of the art of topics.<sup>81</sup> Theophrastus wrote a *Topics* in a mere two books and dealing, it appears from its remains, with preliminaries.<sup>82</sup> In his larger *Topics Reduced*,<sup>83</sup> he may have reduced topics to syllogisms of the hypothetical variety. His influence may have been all the more pervasive since his successors do not seem to have contributed much of significance.<sup>84</sup> Chrysippus' statement that Strato was the last Peripatetic to have paid attention to dialectic is not contradicted by other testimonies, at least for the later Hellenistic period up to Cicero.<sup>85</sup> But of course, our textual evidence concerning these Peripatetics is miserably defective too.

To sum up. The art of topics in its Theophrastean stage has the following un-Aristotelian features: Theophrastus distinguishes between a topic (τόπος) and 'precept' (παράγγελμα), i.e. an instruction to choose one particular class of topics and unmistakably the ancestor of Boethius' *Differentia*.<sup>86</sup> The topic is defined as a starting point (or principle, ἀρχή) or element (στοιχείον), 'from which we

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<sup>80</sup> See F. Solmsen, *Die Entwicklung der aristotelischen Logik und Rhetorik* (Berlin 1929) 58, 64 ff.; I.M. Bochenski, *La logique de Théophraste* (Fribourg 1947) 123; F. Wehrli, 'Der Peripatos bis zum Beginn der römischen Kaiserzeit', in H. Flashar (ed.), *Grundriss der Geschichte der Philosophie*. Vol. 3 (1983) 479 a. This consensus is subscribed to by Van Ophuijsen in his recent discussion of Theophrastus' place in the tradition (1994) 157-62.

<sup>81</sup> On Theophrastus' concern with topics see now van Ophuijsen (1994) 157-62; cf. Ebbesen (1981) 11; Huby (1989) 71 f.

<sup>82</sup> D.L. V 42 = 1.72 FHS&G.

<sup>83</sup> Ἀνηγμένων τόπων, D.L. V 42 = 1.72 FHS&G.

<sup>84</sup> Eudemus does not seem to have dealt with topics separately, but in one fragment from his *On Expression* (Περὶ λέξεως) he draws a distinction between questions about accident, questions about essence and dialectical problems (Alex. in *Top.* p.69.13 ff. Wallies = Fr. 25 Wehrli) which reflects orthodox Aristotelian doctrine (*Met.* 1007a31) as well as Theophrastus' rearrangement of the topics, on which see further in text.

<sup>85</sup> Plut. *SR* 24, 1045F (*SVF* II 126) = Fr. 19 W. Elsewhere Strato is said to have added a new topic to an Aristotelian topic concerning relations: Fr. 30 W. Cf. Van Ophuijsen (1994) 163.

<sup>86</sup> For this distinction see Alex. in *Top.* 135.2-18 = FHS&G 123.

take the starting points concerning each subject by turning our mind to it.<sup>87</sup> It is said to be delimited in that 'either it comprises the common and general (notions) which are the chief ingredients of syllogisms, or these are capable of being shown or taken from them'.<sup>88</sup> Thus, to repeat Alexander's example, an instance of a topic is: 'if a contrary (A) belongs to a contrary (1), then its contrary (A') belongs to the contrary of the other (1'), which belongs under the precept 'one must argue from contraries'. It should also be noted that Alexander speaks here not only of a topic, but also of an argument (λόγος) or proposition (or premise, πρότασις).<sup>89</sup>

Theophrastus' use of the term translated here as 'starting-point' or 'principle' (ἀρχή) as well as his presenting topics as premises are at variance with Aristotle's definitions, but they are in line with Galen's account. The latter differs from both, it seems, as to the role of general notion or opinion (δόξα) as that from which the premises are derived. For Galen demotes opinion as such to the rhetorical class. But perhaps there lies a point of contact in the fact that Galen does after all seek agreement of opinion as conceptual starting-point—a purified kind of opinion marked by clarity and obviousness.<sup>90</sup>

Theophrastus also simplified Aristotle's ordering of topics based on the distinction between the *praedicabilia*. This distinction was reduced to one between what falls under the definition (genus, difference and sameness) and what does not (accident), which is made to include 'what is proper'.<sup>91</sup> Clearly this basic bipartition is reflected in Cicero's division of topics (esp. 11-24). But it also recalls the division between essence and attributes basic to the argumentative procedures (the 'parts of dialectic') explained in Alcinous'

<sup>87</sup> The idea of starting-point (ἀρχή) for finding an argument can be paralleled from Galen, *PHP* II 3.5, viz. at the outset of his inquiry into the heart (and brain) (ἀρκτέον ... ἀπὸ τῶν ὑπαρχόντων) and VI 3.8, at the outset of his investigation of the liver (ἀρξόμεθα ... ἀπὸ τῶν ἐναργεστέρων). Note here also note εὐπορήσομεν, expressing the idea of being provided with a large supply of premises by taking a particular point of departure: this recalls Arist. *Rh.* A 2.1356a33, but see also similar formulations in Alexander on behalf of Theophrastus: in *Top.* 5.26 = FHS & G 122 A; *ibid.* 126.20 = FHS&G 122 B.

<sup>88</sup> Alex. in *Top.* 5.21-6 = FHS&G 122 A 1-6, cf. in *Top.* 126.14-16 = FHS&G 122 B.3-5; cf. Arist. *Rh.* B 22.1396b20-1, 26.1403a16-7.

<sup>89</sup> In *Top.* 126.16-17 = FHS&G 122 B.5-6; 135.7-9.

<sup>90</sup> See *supra*, p. 63 n. 116; 15 ff.

<sup>91</sup> Theophrastus, FHS&G 124 A, B; 132. For some ancient reactions see the discussion in Van Ophuijsen (1994) 160 f.

handbook<sup>92</sup> and exemplified by the structure and scheme of reference of Galen's argument.

I assume that the similarities between Galen and Theophrastus are due to the fact that Galen is dependent on the tradition instigated, at least in large part, by Theophrastus on the basis of the Aristotelian *Topics*. The testimonies on Theophrastus inform us about some features of this tradition which are lacking from the Ciceronian material, or are coloured by his legal concerns. It is true that Galen also directly appeals to Theophrastus' *Second Analytics* (II 2.4). *Topics* in their reduced Theophrastean form (see above) appear to have been absorbed more and more into syllogistic. This has been taken to be indicated for Theophrastus' work by the sheer brevity of his *Topics* as compared with Aristotle's work of the same title.<sup>93</sup> So perhaps we should take the reference to Theophrastus' work seriously, although the few attested fragments are of no assistance on the points at issue.<sup>94</sup> At the same time, we should not suppose that the direct use, to whatever extent and in whatever way, of a Theophrastean (or Aristotelian) work precludes dependence on a handbook or commentary. That the latter was the case seems undeniable in view of the close similarities we have noted between such passages as *PHP* II 3-4 and Cicero, *Top.* 6-8, with their stock criticisms of the Stoics. It is useful to remind ourselves of what Dillon has called an often forgotten fact of life: most ancient readers came to the philosophical texts of the classical past under the guidance of a teacher, who had been introduced to them by *his* teacher and so on. Both the original exposition and the scholastic tradition (both oral and written), then, are operative in the way the ancients developed their own ideas about the philosophers they read.<sup>95</sup> This recognition should prevent us from grossly oversimplifying the situation when we talk about influences.

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<sup>92</sup> See *supra*, pp. 30 ff.

<sup>93</sup> Cf. Bochenski (1947) 36 f.

<sup>94</sup> See *supra*, p. 5.

<sup>95</sup> Dillon (1977) xv.



## CONCLUSION TO PART ONE

In the foregoing chapters we have laid out and discussed the evidence relevant to the questions raised at the outset of this study. Now it is time to look back and present some concluding remarks. What we have done is to attempt to determine the nature of Galen's methodology in the light of several historical influences to which he was exposed. Galen had studied the Aristotelian treatises on his own but his reading was to a large extent conditioned by the exegetical traditions of his day. In particular we have traced several parallels in both content and wording with the tradition concerned with dialectical topics on the basis of such sources as Cicero, Boethius and Alexander's commentary on Aristotle's *Prior Analytics*. This comparison not only serves to identify a particular historical backdrop for Galen's argument but also enables us to determine what Galen has to offer about the state of the art of topics in his day, e.g. its use of topics for both discovering and evaluating propositions (notably axioms). In addition, we have established close affinities with the relevant sections in Platonist handbooks such as Alcinous' *Didascalicus* or the source of the excerpts in the so-called eighth book of the *Stromateis* by Clement of Alexandria. Particularly striking are the number and coherence of parallels to be found in the last work, especially in its section concerned with the discovery of proof. Galen reflects the canonization of the dialectical methods ascribed to Plato by later Platonist manuals. In particular he adopts their account of the methods of analysis and synthesis in terms of the essence/attributes distinction. Meanwhile the technique of diaeresis is crucial for ordering and analysing the subjects and options under discussion. In this case too the pattern found in Galen is largely traditional, as could be established on the basis of doxographic texts relating to the so-called *Placita* tradition in particular. This fact is directly relevant for assessing the role and status of other elements of his argument, notably his celebrated anatomical experiments. Their scope is seriously limited by Galen's use of a ready-made set of available options (Plato-cum-Hippocrates/Aristotle-cum Theophrastus/Chrysippus), barring alternative interpretations.

But there are also aspects of Galen's method which appear to be

at variance with the mainstream scholastic tradition which forms its background. First, there is his assessment of the Aristotelian *endoxa* as belonging to rhetoric rather than dialectic and hence being unsuitable for scientific and demonstrative discourse. But here too he is not entirely original. This particular feature seems due to the inspiration of the Alexandrian medical scientist Herophilus, who apparently worked out his methodology in the light of Peripatetic treatises as well. Galen also was in a position to avail himself of the interpretative tradition concerned with the Aristotelian *Topics*, which also distinguishes between premises derived from actual properties of the subject (corresponding to Galen's demonstrative and dialectical classes) and premises dependent on authority (characteristic of Galen's rhetorical class). In this connection I have drawn attention to the ambivalent status of the dialectical class in its Galenic version. His use of the label 'external' is symptomatic of the modification vis-à-vis the traditional schematization: dialectical premises are external in regard to the essence, but not external in regard to the subject under inquiry as such. In the second sense it applies to the rhetorical and sophistical classes only. And it is only in the latter sense that the label is found in the related texts from other sources (notably Cicero's *Topics*).

A similar pattern emerges from a consideration of the role accorded by Galen to anatomical experiment in his scientific method. He employs the twofold procedure of traditional analysis and synthesis. At the same time he stresses the importance of experimental confirmation, which, he holds, provides the clearest type of evidence as to the function of the organs under investigation (heart, brain, liver). Hence this type of confirmation concludes a complete or ideal demonstration. On this point, as we have seen, he also claims some originality. Again, there are indications that Galen derived his inspiration from the medical tradition, in particular Herophilus. But here, too, he stayed within the Aristotelian framework.

Likewise philosophical (Aristotelian and Stoic) as well as medical strands can be discerned in the pivotal role assigned by Galen to attributes that are proper to the organs under examination. In accordance with his strongly teleological view of Nature, properties indicate essence, or function. They result from the procedure of selecting 'appropriate' attributes and steer and justify the next stage of demonstration, viz. that of experimental confirmation.

Their use as heuristic signs prompting a particular course of action by the physician is no doubt indebted to the medical tradition as well.

We may conclude that in *De placitis* II-III (and VI) Galen is applying in a fairly systematic manner a specific methodology which can be characterized along the lines outlined above. These books reveal a very intriguing attempt to combine traditional philosophical concepts and procedures with functional anatomy and scientific proof on an experimental basis.

Conclusions that are too general should not be based on an examination which concentrates on one particular treatise or a part of it. Indeed, it is reasonable to suppose that a thinker so bent on testing philosophical concepts as to their utility for solving particular scientific problems will often use the same method differently in different contexts.

No doubt many questions raised in the preceding pages could be further examined on the basis of more material. In particular Galen's view of definition and of the procedures of diaeresis and analysis should be explored further on the basis of larger selections from his works.



**PART TWO**

**CHRYSIPPUS: DIALECTIC AND PERSUASION**



## CHAPTER ONE

### PRELIMINARIES

#### 1.1. *Introduction*

Galen's critique in *PHP* II-III rests largely on the claim that Chrysippus' arguments are foreign to scientific discourse. This claim must be seen in relation to certain views concerning knowledge and method, which I have considered in Part I. Obviously, these views differed from the methodological presuppositions inherent in Chrysippus' demonstration. In Part II I propose to examine the Chrysippean fragments with a view to clarifying this difference concerning Chrysippus' procedure. In view of the lack of scholarly literature on the fragments of the *On the Soul* I must discuss a number of them in some detail. Here the study of methodological aspects is particularly rewarding because of the relatively large amount of available verbatim text. We are thus in a position to elucidate the manner in which Chrysippus construed a relation between his various types of arguments, and in particular the relation of his use of common experience, or primary notions (*προλήψεις*), to more technical forms of argument. As a result, a more balanced evaluation of the discussion in *PHP* II-III becomes possible.

In order to corroborate his thesis that the mind resides in the heart, Chrysippus avails himself of conceptual material from various spheres of non-philosophical thought: common opinion, popular parlance, poetry as well as science. After a preliminary discussion on the textual evidence and some modern assessments (Ch. 1), I shall examine Chrysippus' exploitation of these types of testimony in separate chapters (Chs. 2-5), drawing special attention to their role within the structure of Chrysippus' discussion as a whole. The final chapters (Chs. 6-7) provide an overall evaluation of Chrysippus' method. Here I shall argue that the key to understanding the Stoic's argument as an integral whole lies in the concept of the *πιθανόν* ('the persuasive') as a tool of early Stoic dialectic.<sup>1</sup> This dialectical aspect is considered in the light both of

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<sup>1</sup> In connection with Chrysippus I use the term 'dialectic' in the sense of science of philosophical discourse: see esp. the definitions at D.L. VII 42;

Stoic epistemology and of the debate between Stoics and Academics in the early Hellenistic period.

### 1.2. *The State of the Evidence*

According to Diogenes Laertius, Chrysippus wrote more than 705 books (i.e. scrolls, not titles). There is no good reason to dismiss this report as untrustworthy.<sup>2</sup> The third Stoic scholarch was known, if not notorious, for his prodigious output—a fact which in the anti-Stoic tradition reflected by Diogenes as well as Galen is attributed to his repetitiveness, impulsiveness, blatant lack of self-criticism and fondness for quoting poets and other authorities.<sup>3</sup> In Galen's day, Chrysippus was recognized as the prime authority for Stoic doctrine. His treatises continued to be studied in the Stoic schools. Likewise he was the privileged adversary of Plutarch, Galen and other authors, who in their anti-Stoic treatises insert proof-texts from his works to serve as butts for their criticisms.<sup>4</sup> Nonetheless, of Chrysippus' writings a mere two-hundred book-titles and a comparable number of *verbatim* fragments—often mere snippets—survive.

Chrysippus is generally believed to have been the second founder of Stoicism, the thinker who further developed the system laid down by Zeno, providing it with a firm logical foundation and structure so as to make it more capable of withstanding the attacks

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Alex. Aphr. *In Top.* 1.8-14 (SVF II 124) and the other texts assembled in Long-Sedley (1987) vol. 1, 183-88 (31). Long-Sedley persuasively ascribe to Chrysippus the definition of dialectic as the 'science of what is true and false and neither', i.e. the expertise which specializes in distinguishing true from false impressions and is fully integrated with epistemology (189 f.). Thus conceived, dialectic is a complex field, involving techniques derived from the Platonic and Aristotelian traditions but also encompassing formal logic. On Chrysippus' contribution to the development of Stoic dialectic see also Long (1978), esp. 105 ff.

<sup>2</sup> See D.L. VII 180 (SVF II 1). Diogenes gives this number in view of the catalogue he offers at VII 189-202 (SVF II 13-18). This catalogue has not been preserved in full, but the way Diogenes introduces it (189: 'Ἐπεὶ ... τὰδε) implies that he intended to present a complete overview, if probably not each and every title; cf. Von Arnim (1899) 2505; Tieleman, forthcoming 1.

<sup>3</sup> The notice on Chrysippus' stylistic and compositional shortcomings at D.L. VII 180 looks like a paraphrase of Carneades' words quoted in Epicurus' βίος at X 26-7 (FDS 157, not in SVF); cf. Mansfeld (1986) 299 f., who speaks of 'a sort of double'.

<sup>4</sup> Evidence collected by Gould (1970) 7 ff.; still worth reading Von Arnim (1899) 2506; cf. SVF I (1905) x-xi; see further the estimations of Bréhier (1951), 18 f., Pohlenz (1984) 291 f.



launched by the Sceptical Academy. He reasserted the school's presence on the philosophical stage after a precarious period in which Cleanthes had considerable difficulty holding his own against adversaries like the Sceptic Academic Arcesilaus and professional rivals like the deviant Stoic Ariston. 'Without Chrysippus', it was said, 'there would have been no Stoa' (D.L. 7.183). This picture, as it emerges from ancient testimonies, has on the whole been confirmed by modern scholarship.<sup>5</sup>

Yet it should be kept in mind that the study of Chrysippus as an individual philosopher is greatly hampered by the shipwreck his works suffered in the course of transmission. The fragments preserving Chrysippus' *ipsissima verba* do not suffice for reconstructing his philosophy in a complete and balanced fashion.<sup>6</sup> This material needs to be supplemented from sources of varying nature, date and reliability which are believed to transmit his thought in one way or another. Given the assumption of Chrysippus' dominant influence on the subsequent history of Stoicism, unattributed accounts of Stoic doctrine are often believed to express views Chrysippus would have approved. But, it should be stressed, a secure basis for attribution can only be achieved through a proper understanding of the various traditions—scholastic, doxographic or polemical—in which the doctrines concerned have come down to us. Here the category of verbatim quotations remain—wherever possible—in the inalienable role of point of departure and frame of reference. This may sound like a truism, but as a working principle of Stoic studies it still is insufficiently put into practice.<sup>7</sup> In fact, it is no exaggeration to say that the verbatim fragments are on the whole underused—those of the *On the soul* being a case in point.

A further consequence of the state of the textual evidence is the general lack of information about the overall content and mode of argumentation of Chrysippus' treatises. As a rule, a mere handful of small verbatim fragments derive from the same treatise.<sup>8</sup> These

<sup>5</sup> For a survey of modern views, see Gould (1970) 14 ff.; cf. 2 ff.

<sup>6</sup> The programme of Gould's monograph (1970) is to offer a reconstruction based on *explicitly* attested Chrysippean material only (p.1 ff.). On the drawbacks of this procedure, as well as Gould's (telling, I think) failure to live up to it, see further A.A. Long, *CR* 23 (1973) 214 ff.

<sup>7</sup> See further Tieleman (1995b).

<sup>8</sup> See the survey of titles and fragments at *SVF* vol. III (Appendix II), pp.194-205. Brief surveys of the contents of a number of logical, physical and ethical treatises are offered by Bréhier (1951) 22 ff. On some titles of treatises concerned with dialectic see Brunschwig (1991).

sets of fragments, moreover, are often concerned with varying subjects and provide little insight into the structure of the original exposition from which they have been taken. These circumstances led Von Arnim in his still standard collection of Stoic fragments to arrange the vast material on the basis of subject-matter, lumping together verbatim quotations and indirect testimonies, often without explicit attribution to Chrysippus. An important corollary here was of course the general assumption as to the pervasive influence Chrysippus exerted on 'general' Stoic doctrine as recorded in later sources.<sup>9</sup> As a result, fragments deriving from one and the same treatise are found scattered throughout the *Stoicorum Veterum Fragmenta*. To some extent, Von Arnim derived his principle of organization from Stoic orderings and (sub)divisions of philosophical topics expounded, or represented, by several sources. To be fair, Von Arnim was by no means blind to the varying value of his sources nor to the relative importance of the verbatim fragments. Thus he tried to make up for his somewhat stepmotherly treatment of this latter category by differentiating between the texts by means of different kinds of type-face.<sup>10</sup>

Moreover, he made an exception by assembling and printing together the fragments from the *On the Soul* (SVF II 879-910) and from the *On the Passions* (SVF III 456-90) preserved by Galen in *PHP* Books II-III and IV-V respectively.<sup>11</sup> Those of the former work,

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<sup>9</sup> In his *RE* article on Chrysippus (1899) Von Arnim takes the view that Chrysippus' habit of treating various subjects in one and the same treatise (cf. D.L. VII 180) renders the ascription of fragments to particular works on the basis of doctrinal content unfeasible (col. 2505). The same problem had already been formulated by A. Gercke (1885) 691, in the preface to his edition of Chrysippus' *On Providence* and *On Fate*, in which, however, as Von Arnim points out, he failed to practise what he preached.

<sup>10</sup> Yet Von Arnim displays a remarkable talent for storing away valuable verbatim fragments amidst later inferior material. As a partial apology, one may say that, given the stage of contemporary Stoic studies, it is not astounding that Von Arnim should have cast his net out rather widely.

<sup>11</sup> In the case of the *On the soul*, there is almost no evidence from other sources. Von Arnim prints Calcidius in *Tim.* c. 220 as the first of the fragments belonging to the *On the soul* (SVF II 879). This text—a patchwork of quotations, paraphrase and indirect report—refers explicitly to Chrysippus but gives no indication as to the treatise, or treatises, from which it is derived. The doctrinal parallels between it and the relevant fragments in Galen are insufficiently close to warrant the attribution of Calcidius' testimony to the *On the soul*. Von Arnim put it at beginning of the fragments of this treatise presumably because some of its sections deal with the substance of the soul, a topic with which Chrysippus dealt in the first half of the first book (not discussed by Galen, who quotes only from the second half concerned with the

moreover, offered him a special, indeed unique, opportunity due to the fact that Galen provides not only substantial quotations from one and the same coherent discussion but also many clues regarding their original sequence. This enabled Von Arnim to undertake an (almost continuous) reconstruction of the part of the *On the Soul* thus preserved, viz. the second half of the first book, containing Chrysippus' demonstration concerning the seat of the regent part (SVF II 911).<sup>12</sup> Here, for once, we are, or appear to be, in a position to study the doctrinal content, method, language and style<sup>13</sup> of a

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issue of the seat of the soul; cf. *PHP* III 1.9, 16. However, Chrysippus dealt with the soul also in other works, notably the second book of his *Physics* (Φυσικά), which contained a fairly comprehensive treatment of the soul, see SVF II 105, 140, 741, 867, with SVF III, Appendix II, no. LIX. So we cannot be certain that the material in Calcidius is derived from the *On the soul*. But it contributes little that might influence our assessment of Galen's mode of presentation anyway. Other fragments or rather testimonies relating to the *On the soul* are, first: *Foet. Form.* IV p. 699 K., where Galen refers to Chrysippus and the discussion in *PHP* in connection with the pneumatic substance of the semen. This accepted by Von Arnim as a fragment of the *On the soul* (but not printed accordingly, see SVF II 743 with vol. III, Appendix II, Nr. LXVI). It may indeed reflect Galen's reading of the first half of book I but is not very informative anyway. Secondly, Tert. *De an.* 15.6, printed by Von Arnim as II 880, is merely a doxographic lemma. Finally, we should note Diogenes of Babylon *ap.* Philodemus *De pietate* c. 16 (SVF II 910/III Diog. 33), which attests to Chrysippus' interpretation of Hesiod's myth of the birth of the goddess Athena, a passage from the second half of book I also discussed by Galen (SVF II 908-9); see *infra*, n. 26. We hear nothing from Galen about the second book (cf. III 1.16 κατὰ τὸ πρότερον Περὶ ψυχῆς). To the best of my knowledge there is only one reference to it to be found in our sources, viz. D.L. VII 50 (SVF II 55) on Chrysippus' view of the 'presentation' (φαντασία) as qualitative alteration in the soul.

As concerns the *On the Passions*, Von Arnim added attested fragments from other sources (SVF III 456, 470, 474) but he also printed some texts whose relation to this Chrysippean treatise is—to varying degrees—less certain or at any rate, less direct (SVF III 459, 468, 477, 483-490); cf. Von Arnim (1899) 2505.

<sup>12</sup> Von Arnim's reconstruction has hitherto remained unchallenged. It is possible to point out cases where his solutions cannot be correct; in others there is room for doubt, since Galen's indications are not always coherent, see *infra* pp. 206 n. 42, 233 n. 69, 269 n. 27. What is, for the most part, Von Arnim's reconstruction is offered together with a translation and some comments by J. Fillion-Lahille (1984), 51 ff. SVF II 911 is translated in part (up to p.261, l.44) by A. Virieux-Reymond, *Pour connaître la pensée des Stoïciens* (Paris 1976), 94 ff. Cf. also E. Chauvet, *La philosophie des médecins grecs* (Paris 1886), 528 ff., G. Blin-M. Klein in *Mesures* (15 avril 1939) 163 ff. (translation; *non vidi*), and M. Isnardi Parente, *Stoici Antichi* (Torino 1989), vol. 1, 398-416.

<sup>13</sup> In this regard too these and other verbatim fragments of Chrysippus are underused; compare the following estimations: Gould (1970) 8: '... we cannot control these reports [scil. on Chrysippus' style] on the basis of the few quotations preserved in the fragments' (*italics mine*). De Lacy, *PHP vol.1*, 57:

Chrysippean argument of considerable length. In the following chapters this will be attempted in the light of the insights gained into the context of the fragments as expounded in Part I.

### 1.3. *Modern Interpretations*

The most striking feature of Chrysippus' demonstration as it is found in Galen's treatise are his references to common experience, especially as reflected by common parlance and by literature, all of which are claimed to support the Stoic position. But Chrysippus drew on other sources too, invoking, according to Galen's damning summary, 'the testimony of women, non-experts, etymologies, motions of the hand, upward or downward movements of the head and poets' (*PHP* III 5.22). Of all these, Galen gives examples and with apparent effectiveness exposes their arbitrary nature. If he can find some force in the arguments Chrysippus draws from physiological doctrines and in his syllogisms, the above types of argument he denounces as being rhetorical and below the level of scientific discourse.<sup>14</sup> In so doing Galen reproduces a large number of lines from Homer, the tragedians and other poets adduced by Chrysippus as if to demonstrate through mere imitation the ineptitude of Chrysippus' procedure (*PHP* III 2). That Chrysippus cited a large number of poetic lines alongside references to other pre-philosophical anticipations of Stoic doctrine cannot be an impression entirely due to Galen's selective presentation of textual evidence. Obviously, this makes the question of the original status and function of this type of argument all the more pressing, or indeed crucial.

No less than other ancient polemicists, Galen may be expected to have been bent on presenting the passages from Chrysippus in an unsympathetic or even misleading light. Yet his manipulations alone cannot be held responsible for the fact that most of the scholars who troubled to take a closer look at the fragments have expressed an unfavourable assessment. Because of the amount of quoted material one feels able to judge that Galen does indeed

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'.. too few Chrysippean texts have survived to provide an adequate basis for the study of his language and style.' To cap it all, there is H. Dörrie, *RE* Suppl. Bd. XII (1970) cols. 151 f., who asserts: 'Wenn auch aus Ch.' riesiger Zahl von Schriften *kaum ein Satz im Wortlaut erhalten ist*, so muss ... das Merkmal der Monotonie festgehalten werden...'.  
<sup>14</sup> See *supra*, pp. 16 ff.

make a convincing case.<sup>15</sup> Moreover, Chrysippus wrote his treatise some fifty years after the discovery of the nerves by the Alexandrian scientists Erasistratus and Herophilus (c. 280 BCE), which must have meant, one is inclined to suppose, a crushing blow to the cardiocentric theory. Hence Chrysippus appears stubbornly to propound a superseded thesis. However, as will be shown, this impression is superficial and rash; it was caused by, and in turn contributed to, the present neglect of the study of the fragments concerned.

An exception is the interpretation advanced by J. Gould in his monograph on the philosophy of Chrysippus.<sup>16</sup> Gould, who is keen to do justice to Chrysippus in the face of Galen's unsympathetic critique asks in what ways Galen may have distorted Chrysippus' argument. In particular, he argues that Galen is off the mark in castigating Chrysippus for using unscientific and undemonstrative types of argument (poetry etc.) because he had actually intended his demonstration to be undogmatic and 'probabilistic'. I believe that this argument is interesting though mistaken.

Gould distinguishes two major objections upon which Galen's case rests: the first turns on the 'unproven assumption' which according to Galen underlies many of Chrysippus' arguments, viz. that 'where the affections of the soul are, there is also the ruling part' (1);<sup>17</sup> the second is Galen's point about Chrysippus' arguments being 'dialectical' and 'rhetorical', that is undemonstrative and

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<sup>15</sup> Thus Bréhier (1951) 47 writes that the preserved part of the *On the Soul* '... mérite ... l'appréciation sévère de Galien qui lui reproche de substituer aux démonstrations scientifiques des développements vulgaires et rhétoriques'. A slightly more nuanced view has recently been expressed by Annas (1992) 69 f. who warns us not to be too ready to follow ancient critics of Chrysippus' move and dismiss it as merely retrograde science. But on the other hand she characterizes his position as 'a concession to folk psychology', and a 'cruder view', about which 'he was uncertain and not very happy'. It does not become entirely clear on which textual evidence this assessment of Chrysippus' attitude to his own argument is based. The role and status of the common notions according to the Stoics is better appreciated by Schian (1973) 145-7, whose discussion however is equally concise. Other more or less negative evaluations are given by Pohlenz (1984), vol.1, 87; Solmsen (1961a) 135; Hahm (1977) 161; J. Fillion-Lahille (1984) 68. Several useful observations in connection with the Stoic concept of refutation (ἐλεγχος) are made by Repici (1993) 266-68.

<sup>16</sup> Gould (1970) 133 ff.

<sup>17</sup> For a long complaint on Chrysippus' 'unproven assumption', or *petitio principii*, see e.g. *PHP* II 7.17-21, esp. 18: τὸ ζητούμενον ἀπ' ἀρχῆς ἐξ ἐτοίμου λήπεται. Cf. Arist. *APo.* B 4.91b10 f.: τὸ ἐν ἀρχῇ λαμβανεῖν. See also *supra* p. 11.

unscientific (2). In a general way, this adequately summarizes Galen's case.<sup>18</sup>

The first objection raises the question whether Chrysippus took account of the Platonic tripartition. As we have seen, Galen never tires of arguing that Chrysippus in appealing to the perception of affections in the heart fails to refute Plato who placed these in the heart as well, so that his observations actually support Plato. Chrysippus would have improved his case by concentrating on the rational functions (i.e., voluntary motion, sensation) and proving that these reside in the heart. Galen complains that Chrysippus omitted to expound and refute Plato's doctrine and arguments (*PHP* III 1.20 ff.). Gould defends Chrysippus by arguing that, given the Stoic 'monistic' outlook, the seat of the ἡγεμονικόν may be legitimately inferred from the perception of the affections in the heart. For Chrysippus, as a Stoic, the affections *are* the rational ἡγεμονικόν in a disturbed state, and one should not demand from Chrysippus, as an author of the later 3rd cent. BCE, to explain why he is not a Platonist. But that would be strange. We are asked to accept that Chrysippus in devoting a separate discussion to this controversy took the monistic view for granted and did not engage with the position of Plato—the only philosopher of note to have assigned primacy to the brain.<sup>19</sup> In fact, Gould's suggestion reflects the assumption—generally unquestioned—that by this time the presence of Plato on the philosophical stage was weak if not negligible.<sup>20</sup> But this assumption is unwarranted. In fact there are several explicit references to Plato in the fragments of Chrysippus' writings.<sup>21</sup> He even wrote a separate treatise *On justice* against

<sup>18</sup> Occasionally, Galen also considers Chrysippus' references to the affections, to which objection (1) pertains, in the light of the fourfold classification of premises (see *supra*, Ch. 2.3.). Thus at *PHP* II 7.16-7 the references to the physical manifestations of affections are said to pertain strictly to non-essential attributes of the heart and hence to belong to the dialectical class; cf. *supra*, p.53.

<sup>19</sup> Alcmaeon (*DK* 24 A 8) and Strato (see *infra*, pp. 171 f.), too, chose the brain as the seat of the intellect. On the members of the two opposing camps see Solmsen (1961a) 191 f., Von Staden (1989) 247 ff., Mansfeld (1990) *passim*.

<sup>20</sup> Cf. e.g. H. Dörrie, *Der Platonismus in der Antike: II Der hellenistische Rahmen des kaiserzeitlichen Platonismus* (Stuttgart-Bad Cannstatt) 287, who argues that there is no evidence to show that during the period of high Hellenism Plato had any influence or held any fascination (but cf. 316 n.2). For pertinent criticism of this assumption see J. Barnes, 'The Hellenistic Platos', *Apeiron* 24.2 (1991) 115-28, esp. 122 on Plato's influence on the Stoa.

<sup>21</sup> Plut. *SR* 1038E, 1040A, 1040D, 1041B, 1045F, 1047B; Gellius, *NA* VII 1.6; Gal. *PHP* III 1.14 (on which see *infra* in text).

Plato.<sup>22</sup> Galen's intimations notwithstanding, in the quotations from the *On the soul* too there are positive indications which show his argument to be directed against Plato in particular. Plato occupies a prominent place at *PHP* III 1.14 (*SVF* II 885) in the overview of tenets which prefaces Chrysippus' demonstration—a significant location. In fact, he is the only authority whose name is given. In what followed, Chrysippus may have mentioned Plato very sparsely, if at all.<sup>23</sup> But in the fragment at *PHP* IV 1.5-10 (*SVF* II 905)<sup>24</sup> Homer is said to have placed the rational (τὸ λογιστικόν), the spirited (τὸ θυμοειδές), and the appetitive (τὸ ἐπιθυμητικόν) in the heart (as is illustrated by a number of verses). Chrysippus uses Platonic terminology because he argues against Plato in particular—a fact which is suppressed by Galen.<sup>25</sup>

In studying the *On the Soul* we should therefore take Chrysippus' anti-Platonic motivation into account. Several further passages indicate that other opponents are involved as well. At *PHP* III 1.13 (*SVF* II 885) he refers to the view according to which the ἡγεμονικόν is seated in the head. Here he has in mind both medical scientists (*ibid.* 15, p.170.26), who based themselves on the discovery of the nerves, and also certain philosophers, even including some Stoics. With the views of both sets of authorities he can be found to take issue elsewhere.<sup>26</sup> Although these thinkers, unlike Plato, appear

<sup>22</sup> See the testimonies relating to this treatise assembled by Von Arnim, *SVF* III, p.195. For a fragment relevant to the study of Chrysippean dialectic see *infra*, p. 256.

<sup>23</sup> See *infra*, p. 265 on this feature as characteristic of Chrysippus' dialectic.

<sup>24</sup> Paralleled in part at *PHP* III 7.49-53 (*SVF* II 904).

<sup>25</sup> Galen, for his part, quotes the fragments concerned to argue that Chrysippus admits that there are non-rational faculties distinct from the rational one and so in effect adopts the position of Aristotle and Posidonius: see III 7.53; IV 1.11. On Aristotle and Posidonius see *supra*, p. xxv.

<sup>26</sup> Chrysippus also reacted to the discovery of the nerves: see *supra*, p. 51 f., cf. *infra*, p. 191. One or more Stoics are meant at *PHP* III 8.3, p. 224.2 (*SVF* II 908). Here Chrysippus refers to 'certain people' as advocating an allegorical interpretation of the myth of the birth of Athena from the head of Zeus in support of their view that the seat of the ἡγεμονικόν was in the head, whereupon he presents his own alternative exegesis (namely of the version recorded at Hesiod (*Th.* 886 ff.)). This exegetical controversy turns up again in a fragment from Diogenes of Babylon's *On Athena* at Philod., *De pietate* col. IX 9 ff. (*SVF* III Diog. fr.33. For Philodemus' text see also *DG* 549 and the recent edition by A. Henrichs, 'Die Kritik an die stoischen Theologie in PHerc. 1428', *Cronache Ercolanesi* 4 [1974], 21 f.). Diogenes clearly summarizes the text quoted by Galen. Von Arnim saw this, and printed the fragment under *SVF* II 910 as well. Diogenes, who must have been well informed, identifies the unnamed people as 'certain Stoics': col. IX 9-11 τινὰς [...] τῶν Στωικῶν

also to have transferred the seat of the passions to the head (cf. III 1.12), the greater part of Chrysippus' arguments designed to meet the Platonic doctrine met theirs too.

We need not doubt that Chrysippus considers it a natural assumption that the mind and the passions are located in the same place. This may be inferred from his appeal to the evidence furnished by common experience, most notably in the fragments cited at *PHP* III 7.2 ff. (*SVF* II 900; see below Ch. 6). One of our main tasks in the following chapters is to retrace Chrysippus' own use of the argument concerning the passions (see below Chs. 2.1, 2.3, 2.5, 2.7; 6.1., 6.2).<sup>27</sup>

I proceed to Galen's second main objection. Gould points to *PHP* III 1.15 (*SVF* II 885).<sup>28</sup> After outlining the general dissent concerning the location of the regent part, Chrysippus here attributes this dissent to the absence of a clear perception of the place of the ἡγεμονικόν and of indications from which this may be inferred: '... otherwise disagreement among doctors as well as philosophers would not have arisen to such a degree as it has'.<sup>29</sup> Gould takes this passage as Chrysippus' formal statement of his approach to the question under discussion: 'having recognized ... that the problem at hand is not amenable to a directly empirical solution and that demonstrative reasoning is not applicable to it, Chrysippus turned to less rigorous devices even though they, as he realizes full well, issue in probable conclusions only.' He corroborates this by pointing to the terms 'εὐλογον' ('reasonable') and 'πιθανόν' ('convincing') in Chrysippus' argument concerned with spoken language (*PHP* II 5.15, p.130.24, *ibid.* 20, p.130.33 = *SVF* II 894) and that concerned with the perception of the passions in the heart (III 5.2, p.200.21 = *SVF* II 891).<sup>30</sup> These terms are indeed significant from an

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φάσκειν, which, together with Χρύσιππον (scil. φάσκειν) (col. IX 14), depends grammatically on Δ[ι]ογένης δ' ὁ Βαβυλώνιος ἐν τῷ Περὶ τῆς Ἀθηνᾶς [...] γράφει (col. VIII 14-7); that is to say, it was Diogenes not Philodemus who mentioned these Stoics. See also Cic. *ND* I 41 (*SVF* III Diog. 34).

<sup>27</sup> On the 'unproven assumption' see *supra*, p. 139 n. 17.

<sup>28</sup> Gould (1970) 134 f.

<sup>29</sup> For the text and translation of III 1.15, and the fragment in which this statement is found, see *infra*, p. 154 f.

<sup>30</sup> Gould (1970) 135 n.1. He also adduces Plutarch, *SR* 1047b (*SVF* II 763) as showing that Chrysippus 'was aware of the danger of rash assertion in areas where experience and information are needed'. This is fair enough; but this passage is also compatible with my alternative interpretation, see *infra*, pp. 191 ff.



epistemological, or argumentative, point of view (see Ch.6). However, Gould fails to consider their precise implications for Chrysippus' argument as a whole. As a result, his interpretation founders on some of what he calls Chrysippus' 'obviously inconclusive' arguments. First, there is Chrysippus' version of Zeno's syllogism concerned with spoken language (*PHP* II 5.15-20 = *SVF* II 894). Gould argues<sup>31</sup> that Chrysippus took this Zenonian argument to belong to the plausible, non-demonstrative kind, on the basis of the second premise, which runs: 'Both speech and reason are sent out from the heart through the throat.'<sup>32</sup> This is because it would not satisfy the criteria for demonstrative premises which *Aristotle* had laid down at *APo.* A 2.71b20-22.<sup>33</sup> But we need not bother about Aristotle here. At III 1.11 (*SVF* II 885) Chrysippus treats as 'axiomatic' the Stoic doctrine concerned with the parts of the soul, implying that reason and the voice have the same seat and provenance—a perfectly respectable theory endorsed by medical scientists such as the great Praxagoras of Cos,<sup>34</sup> who believed the inhaled air to be continuous with the psychic πνεῦμα in the heart.<sup>35</sup> A little later on, Chrysippus uses the formula 'according to the truth' with reference to the cardiocentric position (*PHP* III 5.3, p.200.24 f. = *SVF* II 891).<sup>36</sup> Further, Galen says that Chrysippus wrote that Zeno's argument was 'demonstrative' (ἀποδεικτικόν) (II 7.3, p.152.15-6 = *SVF* II 898, third text).<sup>37</sup> That Chrysippus also considered his own version demonstrative is made certain by the conclusion of the syllogism: '... these activities<sup>38</sup> manifestly (ἐκφανῶς) take place in the heart' (*PHP* II 5.19, p.130.32). The characteristically Chrysippean term ἐκφανῶς here indicates the clarity that marks 'cataleptic' presenta-

<sup>31</sup> Gould (1970) 135 with n.2.

<sup>32</sup> Cf. also Chrysippus at II 5.16, p.130.26 f. and Zeno *ibid.* 8, p.130.4.

<sup>33</sup> That is, 'true, primary, immediate, better known than and prior to the conclusion, which is further related to them as effect to cause' (Oxford tr.). Here one could hardly fail to recall Gould's programme of basing his account only on texts which explicitly refer to Chrysippus. See also *supra*, n. 6.

<sup>34</sup> On whose relation to Stoicism see *supra*, pp. 83 ff.

<sup>35</sup> See *PHP* II 5.9, from Diogenes' version of the speech argument (*SVF* III Diog. fr.29). The conception found in Zeno's argument and the other versions also occurs in the Diogenes' definitions of human φωνή and λόγος at D.L. VII 55-6 (i.e. they are sent *from* the mind or intellect).

<sup>36</sup> Cf. *infra*, p. 203.

<sup>37</sup> See also II 5.74, p.142.8-9: 'The argument ... must not be considered demonstrative, as most of the Stoics have supposed.' This must be taken to include Chrysippus; cf. II 5.64.

<sup>38</sup> Scil., τὸν διαλογισμὸν ... καὶ τὰς διονοήσεις καὶ τὰς μελέτας τῶν ῥήσεων (*PHP* II 5.19, p.130.30 f.).

tions, i.e. those guaranteeing the truth of propositions.<sup>39</sup> In fact the speech argument was one of the Stoic trump-cards in the debate.<sup>40</sup> Understandably, Galen sets out to refute it at great length through experimental and other means (*PHP* II 5-6).<sup>41</sup> This textual evidence, then, tells decisively against Gould's thesis of a probabilistic import of Chrysippus' demonstration as a whole.

Another interesting point concerns Chrysippus' attitude to science in this matter (see Ch. 3). In the verbatim fragment at *PHP* III 1.15 (*SVF* II 885), as we have seen, Chrysippus points to the disagreement among philosophers and physicians alike. At the same time he appeals to Praxagoras (*PHP* I 7.1 = *SVF* II 897, fourth text). Gould infers that the Stoic is well aware that Praxagoras represents but one of a number of existing scientific theories concerning the centre of the nervous system. Chrysippus, moreover, admits to being a layman in the sphere of anatomy (*PHP* I 6.13 = *SVF* II 897, third text). Gould takes this to imply that Chrysippus felt unable to adjudicate between the claims of Herophilus and Praxagoras. This, then, led him to assign (mere) probable status to the arguments borrowed from scientists like Praxagoras, putting them on a par with his references to etymology, poetry etc.<sup>42</sup>

<sup>39</sup> For ἐκφανής in Chrysippus see Plut. *Virt. Mor.* 450C (*SVF* III 390); *PHP* II 7.6, p.152.24 = III 1.15, p.170.23 (*SVF* II 885, 886: αἰσθήσεως ἐκφανοῦς; see *infra*, p. 148. For clarity and distinctness as mark of cataleptic presentations see e.g. D.L. VII 46 (*SVF* II 53) with Frede (1983), esp. 76 f. Cataleptic presentations divide into those that directly result from sense-perception and those that do not but are grasped by reason: cf. Diocles of Magnesia *ap.* D.L. VII 52, where the conclusions of proofs are said to be apprehended by reason. See further *infra*, p. 270.

<sup>40</sup> Galen says that Zeno's argument was admired by *the* Stoics (i.e., primarily, *contemporary* Stoics) and, moreover, that Diogenes of Babylon quoted it at the beginning of his *On the Regent Part of the Soul* before giving his own version: see *PHP* II 4.7 (*SVF* III Diog. fr.29); see further *supra*, p. 66.

<sup>41</sup> See *supra*, pp. 42 ff.

<sup>42</sup> Gould (1970) 40 avails himself of Chrysippus' appeal to Praxagoras for explaining the relation between science and philosophy at the time. In depicting early Hellenistic science he leans heavily upon L. Edelstein, who underscores the simultaneous existence of rival schools at this period, whose divergent doctrines 'did not imply a distinction between science and non-science .... adherence to any one of them was optional ...' See Edelstein, 'Recent trends in the interpretation of ancient science', in: *Ancient Medicine, selected papers of Ludwig Edelstein*, ed. by O. Temkin and C. L. Temkin (Baltimore 1967) 601 f. In due recognition of the pre-paradigmatic stage of contemporary medical science, Chrysippus is supposed to have refused full scientific status to the medical doctrines he selected in support of his thesis. Gould invokes T. Kuhn's analysis of scientific development at 137, n.1 and 40, n.3.

On the face of it, Gould's interpretation is not without its appeal. Chrysippus seems to have denied conclusive force to any scientific view concerning the nervous system, including Praxagoras' theory, even though this is favourable to the Stoic case.<sup>43</sup> After all, Galen says Chrysippus merely *mentioned* Praxagoras and *opposed* him to those who regarded the head as the source of the nerves.<sup>44</sup> However, it is one thing to bring these considerations to bear on the problem of Chrysippus' attitude towards current scientific insights; it is quite another to take them to support a probabilistic view of Chrysippus' argument as a whole.

A more general consideration suggests itself. Fragments of other Stoic, notably Chrysippean, treatises suggest that references to common experience, popular parlance and poetry are by no means confined to questions in which certainty cannot be obtained. Thus in the *On Fate*<sup>45</sup> Chrysippus drew on the same fields of reference in arguing for Stoic determinism—a fundamental school dogma. Likewise the controversy about the seat of the intellect does not concern a minor point but one that unleashes a cascade of implications. It affects such fundamental issues as the nature and therapy of the passions and the problem of evil and human responsibility.<sup>46</sup>

In sum, Gould's interpretation does not survive a closer inspection of the textual evidence. Paradoxically it bears the stamp of the very operations of Galen's polemic from which it seeks to rescue Chrysippus. In this regard it reflects a more widespread evaluation of the fragments *On the soul*, which has tended to accept Galen's criticisms. But this negative assessment, and its attendant neglect of the study of these fragments, is unjustifiable, if not entirely unaccountable in view of Galen's manipulations. As will be shown, the comparatively rich material concerning the *On the soul* offers far better opportunities to study Chrysippean dialectic than the fragments of other treatises, or any indirect testimonies. Meanwhile the apparent similarities between these other treatises and the *On the soul* suggest that we are dealing with a method of

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<sup>43</sup> It is important to compare the admittedly obscure passage at *PHP* II 5.69-73 (*SVF* II 898), where, on the most plausible interpretation, Chrysippus denies decisive force to the scientific view (endorsed by Herophilus and Erasistratus) that the head is the source of the nervous system. On this passage see further *supra*, p. 42

<sup>44</sup> See *infra*, p. 190.

<sup>45</sup> E.g. *SVF* II 913, 915, 925, 999

<sup>46</sup> See *supra*, pp. xxiii f.

more general significance for his philosophy. As we have noted, a central question here concerns the argumentative function and interrelation of the various types of argument and reference employed by Chrysippus.<sup>47</sup> This problem, which has been merely touched upon in the preceding critique of earlier assessments, will be in the forefront of our concerns in the ensuing chapters.

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<sup>47</sup> The relation of the common notions to philosophical argument in Stoic methodology has been studied mainly on the basis of the theological arguments reported by Cicero in the second book of the *De Natura Deorum*. See Pohlenz (1984) 94 f., Boyancé (1962/1971), 446 ff. and Schofield (1980) 283 ff.

## CHAPTER TWO

### THE BEGINNING OF CHRYSIPPUS' DEMONSTRATION

#### 2.1. *Galen's Polemical Procedure*

Chrysippus' observation about the prevalent disagreement among philosophers and physicians over the seat of the regent part (II 7.6 = *SVF* II 887; see Ch. 1.3) bears crucially on the question of his method. It occurs a second time at III 1.15, where it concludes a much longer quotation (*ibid.* 10-15 = *SVF* II 885). This passage, as Galen repeatedly makes clear,<sup>1</sup> prefaced Chrysippus' demonstration as a whole. In the same context, three more quotations follow (III 1.22, 23, 25 = *SVF* II 886), deriving, it appears, from the same continuous text in the order in which Galen presents them and, as a set, directly following the first extensive quotation. At a small distance these in turn were followed by III 2.5 (*SVF* II 890).

But we should note that in II 7.4-22 Galen quotes from and refers to this text in ways both more and less extensive (cf. *SVF* II 887).<sup>2</sup> Here the fragments serve a purpose wholly different from Galen's line of argument in *PHP* III. In the following pages I shall take a closer look at these two sets of fragments, paying special attention to Galen's mode of presentation. Given their original location, these fragments, taken together, throw much light on Chrysippus' approach to the question under investigation.

In the context of the first set of quotations, which I may label (A), Galen fabricates a self-contradiction on Chrysippus' part by accusing the latter of first writing that there is no clear perception of the seat of the ἡγεμονικόν (which statement Galen subscribes to: *PHP* II 7.14 ff.), but subsequently that people in general perceive the

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<sup>1</sup> *PHP* III 1.16-17; II 7.5; III 7.39.

<sup>2</sup> *PHP* II 7.6 corresponds to III 1.15; II 7.8 to III 1.25. The quotations at II 7.10 and 11 do not recur in Bk. III; that at III 1.22, on the other hand, is absent from Bk. II. For the resulting continuous text as reconstructed by Von Arnim see *SVF* II 911 (p.258.31-259.19). Chrysippus' remark on the imperceptibility of the seat of the regent part (II 7.6 = III 1.15) is also quoted at *PHP* III 7.39. In its context (III 7.34-44) it again functions differently from the earlier occurrences, but in a way that is not strictly relevant to our present discussion.

passions of the mind as arising in the heart (II 7.4-22). This is demonstrated by the following quotations, the first being the passage which we have already mentioned:

(A1) Thus the place seems to elude us as we have neither a clear perception of it, as was the case with the other [parts], nor the indications from which this matter might be inferred by means of argument; otherwise disagreement among doctors as well as philosophers would not have reached such enormous dimensions as it has (*PHP* II 7.6).<sup>3</sup>

Chrysippus continued (cf. p.152.27 ἐφεξῆς) with the following observation:

(A2) The majority of people seem to me to tend towards this view, because they have, as it were, a perception of the affections of the mind happening to them in the region of the chest and especially in the place assigned to the heart, I mean (for example) especially in case of fears and grief and anger, and inflamed anger most of all (*ibid.* 8).<sup>4</sup>

Now Chrysippus, Galen asserts, declined to state in a straightforward manner that men perceive the passions as arising in the chest but qualified συναισθανόμενοι<sup>5</sup> ('having a perception') by means of ὡσαυτί ('as it were'). However, a little later on (μικρὸν δ' ὕστερον: *ibid.* 10, p.154.2), he omitted this qualification:

(A3) For the disturbance that arises in the intellect in the case of each of these [scil. affections] is *perceptibly* in the region of the chest (*ibid.* 10).<sup>6</sup>

Then he continued (εἴτ' ἐφεξῆς):

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<sup>3</sup> οὕτω φαίνεται διαφεύγειν ὁ τόπος ἡμᾶς οὔτε αἰσθήσεως ἐκφανοῦς γιγνομένης, ὅπερ ἐπὶ τῶν λοιπῶν<sup>3</sup> συντέτευχεν, οὔτε τῶν τεκμηρίων δι' ὧν ἂν τις συλλογίσαιτο τοῦτο· οὐδὲ γὰρ ἂν οὐδ' ἐπὶ τοσούτων ἀντιλογία προήλθεν ἰατροῖς τε καὶ φιλοσόφοις.

<sup>4</sup> κοινῇ δέ μοι δοκοῦσιν οἱ πολλοὶ φέρεσθαι ἐπὶ τοῦθ' ὡσαυτί αἰσθανόμενοι περὶ τὸν θώρακα αὐτοῖς τῶν κατὰ τὴν διάνοιαν παθῶν γιγνομένων καὶ μάλιστα καθ' ὃν ἡ καρδία τέτακται τόπον, οἷον μάλιστα ἐπὶ τῶν φόβων καὶ τῶν λυπῶν λέγω καὶ ἐπὶ τῆς ὀργῆς καὶ μάλιστα τοῦ θυμοῦ. As to αὐτοῖς, p. 152.31 note that De Lacy prints the reflexive αὐτοῖς in the parallel quotation at III 1.25, p.172.22, following a correction of the main mss. by Einarson; obviously we should settle for the same reading in both passages.

<sup>5</sup> Note that the prefix συν- is omitted from the quotation at II 7.8 (p.152.30); συναισθανόμενοι does occur in the same sentence as quoted at III 1.25, p.172.21 and appears to be original. The word is also used in other Stoic texts to indicate self-perception, see *infra*, Ch. 2.4.

<sup>6</sup> ἡ γὰρ περὶ τὴν διάνοιαν γιγνομένη ταραχὴ καθ' ἕκαστον τούτων αἰσθήτως περὶ τοῦθ' ὁ θώρακός ἐστιν.

(A4) For if anger arises there, it is reasonable that the other<sup>7</sup> desires are there too (*ibid.* 11).<sup>8</sup>

And later on in his treatise (ἐν τοῖς ἐξῆς τοῦ συγγράμματος<sup>9</sup>) he said:

(A5) Also the affection of angry people *are observed* to arise in the region of the chest, and also those of people in love (*ibid.* 11).<sup>10</sup>

The last quotation further drives home the alleged self-contradiction because of φαίνεται, here rendered 'are observed' (cf. *ibid.* 13). Galen adds that Chrysippus in what followed goes on speaking of the affections as being observed, or appearing, to come about (συνίστασθαι φαινομένων) in the chest or the heart. This agrees with the fact that he takes the verb φαίνεσθαι to indicate an obvious presentation. In most cases he uses it to indicate direct empirical observation, often adding the adverb 'evidently' (ἐναργῶς). He is equally sensitive to Chrysippus' use of (συν)αἰσθησις and its derivatives. Here we should recall that mentions 'simple perception' (αἰσθήσεως ἀπλῆς) as one of the things on which demonstrative premises may be based (*PHP* III 8.35, p.232.9). Note that in (A1) perception pertains to the seat of the regent part, whereas in (A2) and (A3) it refers to the passions affecting the mind. Text (A4) does not, in fact, represent one horn of the self-contradiction concerned with perception; it is a generalization based on the perception of the place of some of the passions. Obviously, any interpretation of the nature and status of Chrysippus' argument should focus on such terms used as perception (αἴσθησις, συναισθανόμενοι) and indications (τεκμήρια). It is reasonable to expect that Galen's mode of presentation blurs the difference between 'clear perception' and 'having, as it were, a perception'. I shall pursue this point below.

Galen paraphrases Chrysippus' words before giving the two

<sup>7</sup> According to Stoic definitions anger, ὀργή, is a subspecies of desire, ἐπιθυμία, one of the four generic affections: see *infra*, p. 237.

<sup>8</sup> τῆς μὲν γὰρ ὀργῆς γιγνομένης ἐνταῦθα εὖλογον καὶ τὰς λοιπὰς ἐπιθυμίας ἐνταῦθα εἶναι.

<sup>9</sup> This formula indicates, it appears, that this sentence stood at some distance from the previous quotation. This is confirmed by Galen's indication when he quoted this passage (in a slightly expanded form) for the second time: see *PHP* III 7.32 (*SVF* II 903). Here his formula κὰν τοῖς ἐξῆς τῶν προγεγραμμένων indicates that this passage was preceded by that quoted at III 7.25 (*SVF ibid.*), which in its turn comes at the end of a section concerned with etymology. On the structure of the second half of the first book *On the Soul* see further *infra*, Ch. 5.4.

<sup>10</sup> καὶ τὰ τῶν ὀργιζομένων δὲ πάθη [φησι] φαίνεται περὶ τὸν θώρακα γιγνόμενα καὶ τὰ τῶν ἐρώτων.

most important quotations, i.e. (A1) and (A2), that demonstrate the self-contradiction. In doing so, he makes use of an opportunity to introduce a subtle distortion. Thus at II 7.5, p.152.22 f. he says that, after writing (A1), Chrysippus 'speaks of the part [scil. the regent part] as of something evident', whereas in the following quotations Chrysippus only appears to take the perception of the passions as evident. Further, at II 7.7, p.152.28, in paraphrasing Chrysippus, Galen speaks of the 'passions of the mind' (τῶν τῆς διανοίας παθῶν), whereas Chrysippus' actual words may be rendered 'passions happening to the mind' (τῶν κατὰ τὴν διανοίαν παθῶν, II 7.8, p. 152.31). These subtle differences may seem insignificant; yet Galen's modifications strengthen the impression that Chrysippus took for granted that the mind is where the passions are—which can be shown not to be the case (see below).

Regarding the physical manifestations of passion perceived in the heart, Galen appends two further objections. First, they do not seem to indicate an essential property of the heart, as is required for demonstrative premises, because other parts suffer alterations too; these, Galen wrongly affirms, are not mentioned by Chrysippus (II 7.16 f.; cf. III 1.25, p.172.24 ff.).<sup>11</sup> Hence Chrysippus' argument belongs to the dialectical class. Second, if it were indeed accepted that an essential property of the heart is indicated, the observations in question do not apply to the reasoning part but to the spirited or appetitive part only (II 7.17). In referring to the latter, Galen appears to overplay his hand, for placing desire in the heart is at odds with the Platonic view and corresponds to the Stoic view.

The section forming the context of the fragments (pp.152.9-156.26, marked off by the editors as ch.7) is rather loosely attached to what goes before. Galen calls it a digression (II 7.22). Yet it is clear that the topic of perception is important in the preceding section as well. There, in making some methodological remarks, Galen hints a number of times at an opaque passage where Chrysippus is concerned with the question as to what inferences may be drawn from the structure of the nervous system (quoted at II 5.69-70 = SVF II 898).<sup>12</sup> Thus at II 5.94 ff. he argues that, although Chrysippus had glimpsed 'the truth' (that is, the right method), he lapsed into unscientific modes of argument. He would have done better to hold on to 'the premises belonging to the demonstrative

<sup>11</sup> Cf. *supra*, pp.53 ff.

<sup>12</sup> Quoted *supra*, p. 51.



method, and to examine and judge them through sense-perception' (5.97).<sup>13</sup> And at II 7.2 the same passage is meant when Galen asserts that Chrysippus had seen the method for settling the question but neglected the investigation of the matter—which Galen says contradicts Chrysippus' view that Zeno's argument from spoken language is demonstrative (ἀποδεικτικόν). Galen's point is that Chrysippus' remarks (5.69-70) have raised a question that can be settled by anatomical experiment only; yet in a misleading way he speaks as if it was Chrysippus who had actually pointed to its necessity in the passage in question. Next (II 6) he expounds this experiment and thus is able to refute Chrysippus' supposed suggestion at 5.69 f. However, the drift of Chrysippus' argument is quite different, and Galen's contention that a contradiction with the Stoic's evaluation of Zeno's argument is involved is at first sight unconvincing.

So the self-contradiction concerning sense-perception may be inspired by some points raised in the preceding section. Galen above all wishes to remove the idea that the regent part can be perceived through common experience as distinct from technical experience (*PHP* II 7.14 ff.). He thereby attacks one of the most influential arguments in favour of the cardiocentric outlook, viz. that based on the perception of the affections as they are felt to occur in the heart. For this reason he does not confine himself to Chrysippus' self-contradiction as such, but adds two further objections pertaining to the perceptibility of the ἡγεμονικόν. His discussion accordingly divides into two parts: the first setting out the actual self-contradiction (7.4-13), the second containing an additional criticism of the reference to the affections (7.14-21). In this second part Galen sets forth two points essential to his argument in *PHP* II-III as a whole. As is clear from the outline given above, one concerns the fourfold classification of premises or arguments, the other Chrysippus' 'unproven assumption', which would undermine his entire argumentation insofar as it is directed against Plato.

The theme of Chrysippus' self-contradictions acquires greater significance as Galen's discussion proceeds.<sup>14</sup> As a polemical

<sup>13</sup> τοῖς κατὰ τὴν ἀποδεικτικὴν μέθοδον ὑποβαλλομένοις λήμμασιν ἐξετάσαι τε καὶ κρίναι διὰ τῆς αἰσθήσεως.

<sup>14</sup> See the comments at *PHP* IV 1.5 ff.; 4.1 ff.; 4.38; V 1.7; V 4.6; VII 1.8, 14. For charges of inconsistency, see also *PHP* III 5.11, p.202.27; III 7.47-8; IV 1.14;

device, it is of course traditional. Plutarch's *On the Self-contradictions of the Stoics* is extant as a specimen of a genre based on this type of argument<sup>15</sup>—which was all the more devastating in the Stoics' case because of the emphasis they placed on consistency.<sup>16</sup> At *PHP* IV 4.1, Galen announces his intention, pressures of work permitting, to devote an entire treatise to Chrysippus' self-contradictions. Von Arnim's suggestion<sup>17</sup> that here Galen has a particular intermediate source in mind acquires some plausibility from the fact that Galen goes on to present an instance appropriate to his discussion there, viz. the alleged self-contradiction between the definitions of desire encountered in three separate treatises of Chrysippus (*ibid.* 2): the first book *On the Passions*, the sixth book of the *Generic Definitions*,<sup>18</sup> and the *On Impulse*.<sup>19</sup> The latter two works are not

3.1 f.; V 4.14.

<sup>15</sup> Cf. Plut. *SR* 1033A-F, *CN* 1062E. This polemical genre probably originated in the Sceptical Academy. Some titles of treatises apparently written in reaction to treatises of this genre also testify to its existence and influence: Galen wrote a treatise entitled *The Alleged Inconsistencies of Plato in his Arguments concerning the Soul* (*Foet. Form.* IV p.700 K.) or, if he is not citing a title, at any rate one dealing with this subject. Antipater the Stoic wrote an *On the Difference between Cleanthes and Chrysippus* (Plut. *SR* ch.4, 1034A = *SVF* III fr.66 Ant.), designed, it would seem, to refute those who had tried to expose disagreements between the two scholars. Note that anti-Stoic literature frequently opposes Cleanthes and Chrysippus to one another: e.g. *SVF* II 55, 56, III 237; cf. I 525. Galen's exposure of Chrysippean self-contradictions in *PHP* IV and V will be dealt with more fully in my forthcoming *Galen and Chrysippus on the Passions*.

<sup>16</sup> See Plut. *SR* 1033A-F, *CN* 1062E.

<sup>17</sup> *SVF* vol. I, *Praefatio*, pp. XIII-XIV. Von Arnim uses our passage for arguing that in the *De Stoic. Rep.* Plutarch could not have drawn on Chrysippus' treatises themselves but must have used a *Zwischenquelle* (speaking in the singular), just as Galen had done before him. He curtly denies that Galen was thinking of the *De Stoic. Rep.* but I fail to see why this possibility cannot be entertained: cf. the reference to Plutarch's *Homeric Studies* at III 2.18 (= Plut. fr. 125 Sandbach).

<sup>18</sup> p.150.8: ἐν ἑκτῷ τῶν κατὰ γένος ὄρων. Despite the reference to [ἐν] τοῖς ὀρισμοῖς τῶν γενικῶν παθῶν (IV 2.1, p.238.26), Galen would not refer in this way to a list of definitions in the *On the Passions*, the first book of which is referred to in the same sentence: cf. Vegetti (1986) 230. De Lacy *ad loc.* points to ones of the titles contained in Chrysippus' catalogue: Ὅρων τῶν πρὸς Μητροδωρον τῶν κατὰ γένος α' β' γ' δ' ε' ζ' η' (D.L. VII 199 = *SVF* II 16 [p.8.36]; probably generic conceptions [ἐννοιῶν] are to be understood: see the title of the series). Collections of Stoic definitions were used by others too. For Galen see e.g. the Stoic definition of διάνοια as 'source of λόγος' (*PHP* II 5.17), which is inserted for the sake of clarification into a long quotation from Chrysippus (*ibid.* 15-20). This definition may have been taken from a treatise on definitions, perhaps the same one.

<sup>19</sup> Also mentioned at Epict. *Diss.* I 4.14: cf. *SVF* III, Appendix II, nr. XL, p.201, omitting, though, the passage from Galen.

mentioned anywhere else in *PHP* nor, to my knowledge, in the Galenic corpus as a whole. Moreover, there is no other passage in *PHP* where Galen fabricates an argument from self-contradiction on the basis of quotations from more than one treatise. Therefore the self-contradiction concerning desire was probably taken from a specimen of the genre mentioned above. If this assumption is correct, the direct use of a treatise for the purpose of refutation, i.e. the *On the Passions*, does not preclude the simultaneous use of a polemical intermediate source in which quotations from this and other Chrysippean treatises are found.

So I argue that the argument from self-contradiction at *PHP* II 7.4 ff. is most probably inspired by the genre of compilations of alleged Stoic inconsistencies. And it may perhaps also be actually derived from it.<sup>20</sup> The fact that the quotations in question are from one and the same treatise, and moreover from one and the same context, making the accusation of inconsistency all the more powerful, can be easily paralleled from other polemicists.<sup>21</sup> Galen may have been led to pick out from a collection of self-contradictions one appropriate to the motif of experimental observation, which, as we have noticed, features earlier in *PHP* II. Yet (A4), which concerns Chrysippus' unproven assumption rather than perception, may have been lacking in the intermediate source. The same may be true of (A3) and (A5), perhaps added as further evidence for Chrysippus' appeal to perception.

Typically, Galen also recommends Chrysippus' statement that there is no clear perception of the seat of the regent part (A1), just as he argues on the basis of the quotation at II 5.69 f. (see above) as well as of Chrysippus' words quoted at II 7.6 = III 1.15 (see below) that the latter had seen the correct procedure for settling the matter under investigation, i.e. by basing argument on experimental observation. This is an example of the recurrent motif that Chrysippus and other confused minds are occasionally led to express true insights, which are forced upon them, as it were, by the plain

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<sup>20</sup> The use of the first singular at II 7.4, p.152.17 (ἐνρίσκω κτλ.) is irrelevant in this connection.

<sup>21</sup> For inconsistencies based on passages from the same treatise, see e.g. Plut., *SR* ch. 39, 1052C-D; ch. 17, 1041E. Further instances are listed by F.H. Sandbach, 'Plutarch on the Stoics', *CQ* 34.1 (1940) 23, who points out that this is exactly what one would expect of a book of inconsistencies as originally compiled: '... for the compiler would have to read through a number of books in order, noting down inconsistencies as he observed them'.

facts of nature.<sup>22</sup> That II 7.4 ff. is connected rather loosely with the surrounding sections supports the assumption that Galen is here drawing, alongside Chrysippus' complete text, on a polemical source featuring quotations from Chrysippus. There is, at any rate, a marked difference between the two contexts of the passages in question. In the preface to Bk. III (1.5-7), Galen explains why, contrary to his earlier intention, he will proceed with the refutation of Chrysippus' arguments in the book he is about to write. He reports having been challenged by 'one of the most eminent sophists' to show that he could disprove all Chrysippus' arguments.<sup>23</sup> In a deliciously malicious way he explains that in Bk. II he had singled out for discussion only the strongest among Chrysippus' arguments. Hence in Bk. III Galen is aiming at completeness, and it is clear now why he first turns to, and quotes, Chrysippus' preface to the second part of Bk. I and the directly subsequent passages, even though parts of them had already been discussed in the previous book.<sup>24</sup>

Galen's criticism of the second series of fragments, which I may label (B), concerns Chrysippus' general procedure. The latter's remark on the imperceptibility of the ἡγεμονικόν presented at 7.6 now reappears, as was seen, as III 1.15 at the end of a much longer piece of text (*ibid.* 10-5). This long verbatim quotation (ῥῆσις, 16, p.170.28) runs as follows:<sup>25</sup>

(B1) (III 1.10-5):

(10) The soul is a breath (πνεῦμα) connate with us, extending as a continuum throughout the whole body as long as the free-flowing breath of life is present in the body.

(11) Now of its (scil., the soul's) parts that have been assigned to each of the parts (scil., of the body), that of them which extends to the wind-pipe is the voice, that to the eyes is sight, that to the ears is hearing, that to the nostrils is smell, that to the tongue is touch, whereas that which extends to the testicles is spermatic and can be conceived of in about the same way (scil., as the others, i.e. as part of the soul). That

<sup>22</sup> On this traditional motif see Vegetti (1986) 239.

<sup>23</sup> With III 1.5-7 compare III 5.23, where Galen is silent on the eminent sophist, saying that it was because of the prompting of friends that he continued the discussion on the regent part in *PHP* III.

<sup>24</sup> As a result, Bk. III furnishes nearly all our indications as to the original sequence of the fragments of Chrysippus' text: cf. the indications collected by Von Arnim under *SVF* II 884.

<sup>25</sup> For the sake of convenience I here retain De Lacy's division into paragraphs.

(part) where all these (parts of the soul) come together is located in the heart, which is the part of the soul that is the regent part.

(12) This being so, there is agreement about all the other parts, but about the regent part they disagree, some putting it in one place and others in another. For some say it is located in the chest, others in the head.

(13) Furthermore, they also disagree as to these locations themselves, viz. as to where in the head and where in the chest it is, not agreeing among themselves.

(14) Plato said that the soul has three parts, and said that the rational part is in the head, the spirited part in the region of the chest, and the appetitive part in the region of the navel.

(15) Thus the place seems to be beyond our reach as we have neither a clear perception of it, as was the case with the other (parts), nor the<sup>26</sup> indications from which this matter might be inferred by means of argument; otherwise disagreement among doctors as well as philosophers would not have reached such enormous dimensions it has.<sup>27</sup>

This quotation is presented for no other reason than to show in how promising a manner Chrysippus commenced his demonstration: he paid attention to Plato's conception and spoke with 'clarity and precision' (III 1.18, p.170.33). Accordingly, Galen comments favourably on Chrysippus' words quoted at 15, just as he has done with regard to the parallel quotation at II 7.6 (A 1); see above. But here Galen's point is different: Chrysippus was correct in pointing to the need for inquiry through λόγος ('reasoning', 'argument') in those cases where perception is not available (III 1.19). Apparently, this is taken to be implied by Chrysippus' statement that clear

<sup>26</sup> [τῷ] τῶν H: τῶν *corr. Ald.* (cf. pp.152.25, 220.7): τοιοῦτων Von Arnim (*ad SVF* II 885, p.239, l.13). Note that at II 6.5, p.152.21 f. Galen speaks of *ἐναργές* τι τεκμήριον, but he may have added the adjective in view of ἐκφανοῦς said of αἰσθήσεως (see next n.) to bring out more clearly the self-contradiction he imputes to Chrysippus.

<sup>27</sup> (10) ἡ ψυχὴ πνεῦμά ἐστι σύμφυτον ἡμῖν παντὶ τῷ σώματι διήκον ἔστ' ἂν ἡ τῆς ζωῆς εὐπνοία παρῇ ἐν τῷ σώματι. (11) ταύτης οὖν τῶν μερῶν ἐκάστω διατεταγμένων μορίῳ τὸ διήκον αὐτῶν εἰς τὴν τραχεῖαν ἀρτηρίαν φωνὴν [φάμεν Von Müller] εἶναι, τὸ δὲ εἰς ὀφθαλμοὺς ὄψιν, τὸ δὲ εἰς ὅτα ἀκοήν, τὸ δ' εἰς ῥίνας ὄσφρησιν, τὸ δ' εἰς γλῶτταν γεῦσιν, τὸ δ' εἰς ὅλην τὴν σάρκα ἀφήν καὶ τὸ εἰς ὄρχεις ἑτερόν τιν' ἔχον τοιοῦτον λόγον, σπερματικόν, εἰς ὃ δὲ συμβαίνει πάντα ταῦτα ἐν τῇ καρδίᾳ εἶναι, μέρος δὲ αὐτῆς τὸ ἡγεμονικόν. (12) οὕτω δὲ ἔχόντων αὐτῶν τὰ μὲν λοιπὰ συμφωνεῖται, περὶ δὲ τοῦ ἡγεμονικοῦ μέρους τῆς ψυχῆς διαφωνοῦσιν ἄλλοι ἐν ἄλλοις λέγοντες αὐτὸ εἶναι τόποις. οἱ μὲν γὰρ περὶ τὸν θώρακά φασιν εἶναι αὐτό, οἱ δὲ περὶ τὴν κεφαλὴν. (13) κατὰ τὰ αὐτὰ δὲ ταῦτα διαφωνοῦσι, ποῦ τῆς κεφαλῆς καὶ τοῦ θώρακος ἐστίν, οὐ συμφωνοῦντες αὐτοῖς. (14) Πλάτων δὲ καὶ τριμερῆ τὴν ψυχὴν φήσας εἶναι τὸ μὲν λογιστικὸν ἔλεγεν ἐν τῇ κεφαλῇ εἶναι, τὸ δὲ θυμοειδὲς περὶ τὸν θώρακα, τὸ δὲ ἐπιθυμητικὸν περὶ τὸν ὀμφαλόν. (15) οὕτω φαίνεται διαφεύγειν ὁ τόπος ἡμᾶς οὐτ' αἰσθήσεως ἐκφανοῦς γενομένης, ὅπερ ἐπὶ τῶν λοιπῶν συντετύχηκεν, οὔτε [τῷ] τῶν τεκμηρίων δ' ὧν ἂν τις συλλογίσαιτο τοῦτο· οὐδὲ γὰρ ἂν ἀντιλογία ἐπὶ τοσοῦτον προῆλθεν καὶ ἐν ἰατροῖς καὶ ἐν φιλοσόφοις.

perception is not available in regard to the question of the location of the mind (III 1.15). Chrysippus also says that there are no ‘indications’ (τεκμηρίων) on which an inference may be based (15 ... οὔτε τῶν τεκμηρίων δι’ ὧν ἂν συλλογίσαιτο τοῦτο). But the term τεκμήριον used here denotes direct inference from observed fact (see Ch. 2.7). Hence Galen seems to be true to Chrysippus’ meaning insofar as he attributes to him the view that one should follow a more elaborate procedure as distinct from simple perception or inference directly based on it.

Galen leaves the rest of the long quotation undiscussed, using it as a foil for three ensuing objections, which pertain to what *followed* in Chrysippus’ text: first, Chrysippus omits to expound Plato’s arguments in support of the concept of the tripartite soul and then refute them, as he should have done before corroborating his own position (III 1.20, 21, 27);<sup>28</sup> second, the testimony of the multitude used by Chrysippus yields arguments that are unscientific and *merely* plausible (*ibid.* 20); and third, Chrysippus’ exclusively refers to the passions, whereas he should have proved that reason resides in the heart. This is demonstrated by three quotations, which in Chrysippus’ text appear to have followed the earlier one (1) directly:

(B2) We shall next inquire about these matters in the same way, starting out from the common tendency and the things said that agree with it (III 1.22).<sup>29</sup>

Here Galen inserts an explicative note on the expression ‘common tendency’ (τῆς κοινῆς φορᾶς, on which see below, Ch. 2.3), interrupting the Chrysippean exposition. This is continued as follows (cf. p.172.17 εἶτ’ ἐπιφύρων):

(B3) And in these matters it is sufficiently clear that from the beginning they (i.e. people) have tended toward the notion that our regent part is in the heart (*ibid.* 23).<sup>30</sup>

Immediately thereafter (εἶτ’ ἐφεξῆς τούτων) came the following passage, which apart from the last sentence (ὥσανεὶ κτλ.) was also quoted at II 7.8 (A2) because of the formula ‘having, as it were, a

<sup>28</sup> On this criticism, see *supra*, p. 140 f.

<sup>29</sup> περὶ ὧν ἐξῆς ζητήσομεν παραπλησίως ἀπὸ τῆς κοινῆς ὁρμῶμενοι φορᾶς καὶ τῶν κατὰ ταύτην εἰρημένων λόγων.

<sup>30</sup> καὶ ἐπὶ τούτων ἱκανῶς φαίνονται ἐννέχθαι ἀπ’ ἀρχῆς εἰς τὸ εἶναι τὸ ἡγεμονικὸν ἡμῶν ἐν τῇ καρδίᾳ.

perception' (ὥσανεὶ συναισθανόμενοι) as used in connection with the passions:

(B4) The majority of people seem to me to tend towards this view, because they have, as it were, an inner perception of the affections of the mind happening to them in the region of the chest and especially in the place assigned to the heart, I mean (for example) especially in case of fears and grief and anger, and inflamed anger most of all. For impressions arise in us as if it were vaporized from the heart and were pressed against certain [parts] in outward direction and were blowing into the face and the hand (*ibid.* 25).<sup>31</sup>

Galen points out that this argument, quite apart from being inappropriate, merely confirms Plato's view that the spirited part resides in the chest (*ibid.* 27, 33).<sup>32</sup> To corroborate this point he cites *Ti.* 70a7-b8 and 70c1-5 (*ibid.* 31, 32), which depict the physical manifestations of anger in terms very similar to the Chrysippus passage.

Galen's present point of view leads him to quote the following passage, part of which he has also presented at II 7.11 (A4):

(B5) For if anger arises there, it is reasonable that the other desires are there too, and indeed the rest of the passions and the reasonings and whatever resembles these things (III 2.5).<sup>33</sup>

This passage, in conjunction with three poetical lines quoted by Chrysippus (III 2.2 = *SVF* II 890), serves to demonstrate that the Stoic fails to prove that the *rational* functions are in the heart. Here as elsewhere Galen's point is that Chrysippus takes for granted that the latter are in the same place as the passions (the motif of his 'unproved assumption').<sup>34</sup>

We now have acquired an impression of the way in which Galen presents excerpts from one and the same original text in order to press home his polemical points in two different contexts. In addition a couple of minor differences between (A) and (B) concerning the extent of selection from the original text may be pointed out:

<sup>31</sup> κοινῇ δέ μοι δοκοῦσιν οἱ πολλοὶ φέρεσθαι ἐπὶ τοῦτο ὥσανεὶ συναισθανόμενοι περὶ τὸν θώρακα αὐτοῖς τῶν κατὰ τὴν διάνοιαν παθῶν γιγνομένων καὶ μάλιστα καθ' ὃν ἡ καρδιά τέτακται τόπον, οἷον μάλιστα ἐπὶ τῶν λυπῶν καὶ τῶν φοβῶν καὶ ἐπὶ τῆς ὀργῆς καὶ μάλιστα τοῦ θυμοῦ· (ὥσανεὶ γὰρ) ἐκ τῆς καρδίας ἀναθυμιωμένου καὶ ὠθυμένου ἐκτὸς ἐπὶ τινα καὶ ἐμφυσῶντος τὸ πρόσωπον καὶ τὰς χεῖρας γίνεσθαι ἡμῖν ἐμφάσεις.

<sup>32</sup> See further *supra*, p. 55.

<sup>33</sup> τῆς μὲν γὰρ ὀργῆς γιγνομένης ἐνταῦθα εὖλογον καὶ τὰς λοιπὰς ἐπιθυμίας ἐνταῦθ' εἶναι καὶ νῆ Δία καὶ τὰ λοιπὰ πάθη καὶ τοὺς διαλογισμοὺς καὶ ὅσον τούτοις ἐστὶ παραπλήσιον.

<sup>34</sup> See also *supra*, pp. 11, 139 n. 17.

— The last sentence of quotation (B4) is suppressed in the parallel quotation (A1). This sentence is not needed to demonstrate that Chrysippus said that people perceived the passions as arising in the heart. But in context (A) *PHP* II 7 the omission enables Galen to suggest that Chrysippus was silent on parts other than the chest, although these too display alterations (7.16). From (B4) it is clear that Chrysippus fully recognizes the physical impact the passions exert on the other parts and accordingly describes them as being felt to *arise from* the heart. We may compare III 5.43 f. (*SVF* II 899 see Ch.6.1), where Chrysippus argues that, although other parts of the body are affected too, the heart is the *primary* locus of fear (cf. III 1.25, p.172.24) and grief (cf. *ibid.* 1.23). In B Galen includes the sentence referring to other parts into his quotation, doubtless because it enhances the similarity to the ensuing *Timaeus* passage, which is presented to show that Chrysippus expressed Plato's view.

— Likewise quotation (A4) is briefer than its counterpart (B5), lacking the reference to the 'other affections and the reasonings and whatever resembles these things.' In (A) this addition is not needed; in (B) it makes the quotation support Galen's point about Chrysippus' 'unproven assumption', which has come up in what directly precedes the quotation.

## 2.2. *Chrysippean and Academic Dialectic*

In the following pages I shall examine the Chrysippus fragments found at *PHP* II 6 and III 1 from Chrysippus' viewpoint. First there is the exceptionally long quotation at *PHP* III 1.10-15 (*SVF* II 885; see also Ch. 2.1). Galen repeatedly informs us<sup>35</sup> that it prefaced Chrysippus' demonstration concerned with the regent part, which formed the subject matter of the second half of the first book, the first half being devoted to the soul's substance.<sup>36</sup> This is borne out fully by its contents; the first sentence (10) apparently summarizes the doctrine on the substance as expounded and defended in the preceding discussion (see below); Chrysippus then briefly expounds the *status quaestionis*: first he presents the Stoic doctrine of the soul's eight 'parts', adding their respective location in the body, and mentions the heart as seat of the regent part of the soul (11). He goes on to point out the prevailing disagreement concerning its

<sup>35</sup> *PHP* III 1.16-7; II 7.5; III 7.39.

<sup>36</sup> Cf. also *infra*, n. 81 with text thereto.



location, which he illustrates by giving an overview of conflicting tenets (12-14). Finally, he explains the disagreement as due to the imperceptibility of the seat of the regent part (15).

Recently, J. Mansfeld<sup>37</sup> has demonstrated that Chrysippus must have drawn the overview of conflicting tenets from an early specimen of the line of doxographic tradition known from the compilation reconstructed and ascribed to 'Aëtius' (c. 100 CE) by Hermann Diels.<sup>38</sup> An important witness in favour of Mansfeld's argument is ps.Plutarch ('Aëtius'), *Plac.* IV 5, which closely corresponds to Chrysippus' overview in both content and structure. Yet, whereas ps. Plutarch attaches names to the tenets, Chrysippus mentions nobody—except Plato. While the latter point may reveal Chrysippus' polemical motivation,<sup>39</sup> his summary mode of presenting a variety of positions indicates the familiarity both of the controversy in which he participated and of the type of literature in which the positions involved were set out as standard.

A number of further peculiarities cast light on what Mansfeld calls the *Sitz im Leben* of doxographic overviews in the 3rd c. BCE.<sup>40</sup> His interpretation of the fragment from this angle bears importantly on the nature of Chrysippus' demonstration as a whole. The overview at § 12-15, he argues, may be related to the Sceptical technique of διαφωνία, i.e., doxographic overviews such as this were designed to induce suspension of judgement, the standard Sceptical conclusion from conflict of opinions.<sup>41</sup> Although the term διαφωνία is absent, Chrysippus does use the cognate verb διαφωνοῦσι (p.170.17,19; cf. 1.20 οὐ συμφωνοῦντες αὐτοῖς), as well as the noun ἀντιλογία (1.26), which may represent a more archaic equivalent.<sup>42</sup> A Sceptical affiliation here may seem surprising; yet this is not an isolated case. Chrysippus is on record as borrowing certain argumentative tools from the Sceptical Academy. Biographical tradition moreover connects him with Arcesilaus and Lacydes by making him their pupil for some time—which connection may have sprung from the recognition of an actual

<sup>37</sup> Mansfeld (1990a).

<sup>38</sup> H. Diels, *Doxographi Graeci* (Berlin 1879; several reprints); cf. *supra*, p. 82.

<sup>39</sup> See *supra*, p 141.

<sup>40</sup> Mansfeld (1990a) 334 ff.

<sup>41</sup> Mansfeld (1990a) 338 ff.

<sup>42</sup> See Mansfeld (1988) 184, who also suggests that it may have been derived from Protagoras (cf. D.L. IX 55 = DK 80 A 1).

*systematic* relation.<sup>43</sup> The nature of Chrysippus' interest in Sceptical dialectic becomes partly clear from two verbatim passages quoted by Plut., *SR* ch. 10, 1036A (*SVF* II 127), 1036D-E (*SVF* II 270). Here Chrysippus prescribes that those to be educated in Stoic philosophy should also be acquainted with the tenets and arguments of others, while emphasizing that this exposure to incorrect views should occur at the right moment and with due caution. This didactic strategy was aimed at destroying the plausibility of the views in question and so reinforcing the pupils' adherence to Stoicism.<sup>44</sup> Arguably, it is these recommendations which Chrysippus is putting into effect at *PHP* III 1.10-17.<sup>45</sup> The beginning of the demonstration concerning the regent part can be said to provide the right opportunity for presenting, alongside the Stoic view, a number of others whose plausibility is to be destroyed in what follows. Since these views are opposed to one another in Sceptical fashion, the subsequent discussion, which leads to the acceptance of one of them as true, may be expected to embody Chrysippus' method of circumventing suspension of judgement. In fact, several reliable reports state that he had designed a method to resolve the Sceptical dead-lock.<sup>46</sup> A further point of interest here is the plausibility (πιθανόν) of the views and arguments under discussion, an aspect which I hope to show is crucial to his dialectical method.

### 2.3. *The 'Common Belief'*

Chrysippus announces his intention to conduct his inquiry (ζητήσομεν) by starting (ὀρμώμενοι) from what he calls the κοινή φορά and the things said in accordance with it (III 1.22 = *SVF* II 886).<sup>47</sup> In his subsequent discussion the concept of κοινή φορά

<sup>43</sup> See Sotion *ap.* D.L. VII 183 (*SVF* I 1, Sotion fr.22 Wehrli), with the comments by Mansfeld (1990a) 340. On the debate between Early Stoicism and the Sceptical Academy, see Couissin (1929/1983) 31 ff. Long (1980); Ioppolo (1986), who argues against Couissin's 'dialectical interpretation' of the arguments advanced by Academics such as Arcesilaus.

<sup>44</sup> See further *infra*, p. 265.

<sup>45</sup> As is suggested by Mansfeld (1990a) 341; cf. Ioppolo (1986) 200 ff.

<sup>46</sup> See Plut. *SR* 1033A (*SVF* II 3b); 1045B-D (*SVF* II 973); Cic. *Fat.* 39 with Mansfeld (1990a) 341 f.

<sup>47</sup> For references to the κοινή φορά see also III 1.25 (p.172.20 f. κοινή φέρεσθαι); 5.3 (p.200.25: τῆς ῥηθείσης φοράς; 1.29: τὴν τοιαύτην φορὰν); 7.21 (p.216.10: καθ' ἣν ... φορὰν καὶ τὰ τοιαῦτα λέγεται); 7. (p.216.25 f. κατὰ τοιαύτην ... φορὰν καὶ οἱ τιμωρητικώτερον πρὸς τινὰς φερόμενοι ὀρμῶν ἐπὶ τὸ ταύτην [scil. καρδίαν]

features prominently. Nonetheless, to the best of my knowledge, it does not make its appearance anywhere else in verbatim fragments of Chrysippus, or other Stoics for that matter. At its first occurrence, Galen thinks it necessary to interrupt his quotation to explain it to the reader as 'what is believed by all people in general' (23, p.172.17 τὸ κοινῇ πᾶσιν ἀνθρώποις δοκοῦν). Strictly, Chrysippus does not speak of *all* people, but rather indicates a large majority (25 κοινῇ .. οἱ πολλοὶ φέρεσθαι ...), in keeping with his remark about the prevalent disagreement concerning the location of the regent part (III 1.12-4.); yet Galen is right insofar as Chrysippus is referring to a certain type of belief: φορά is attested in the sense of 'line of thought', 'opinion', 'assumption' etc. in Hellenistic and later authors.<sup>48</sup> The expression κοινὴ φορά in the sense of *opinio communis*, moreover, is paralleled in Porphyry and other authors.<sup>49</sup> Pachet's identification of (common) φορά ('mouvement ou transport') with the concept of δειξίς<sup>50</sup> is interesting in view of the relation of δειξίς to psychic 'motions' but has no real textual support.<sup>51</sup> Nor is there anything in the text to support Le Boulluec's vision—developing Pachet's suggestion—of the φορά as a cosmic movement (God's, apparently) steering people's thoughts, words and gestures.<sup>52</sup> It is of course true that the Stoics see God as active in every cosmic process, but it does not seem particularly illuminating to adduce this doctrine in the present connection. It seems more relevant to start from the consideration that man's individual psycho-physical

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ἐκσπάσαι, καθ' ἣν φοράν κτλ.)

<sup>48</sup> See *LSJ*, s.v. φορά II.4 b, referring, among other passages, to Philod., *Rh.* 2.296 Sudhaus, κατὰ τὰς φορὰς τῶν Στωικῶν; see also Hierocles, *El. mor.* III 60-1 Bastianini-Long, τὰς τῶν ἄλλων .... φορὰς. Epic., *On Nature* fr.34 ('Liber incertus') [31.14] Arighetti (= *PH* 697 9 II), ταῖς τῶν πολλῶν φοραῖς (cf. I.16 πάντα τὰ διὰ τῶ[v] δοξῶν περαίνω[με]να). Chrysippus' linking of the conceptual level, designated by 'φορά', and the verbal level (*PHP* III 1.22) is paralleled at Epic., *Ep. Hdt.* I 70 I.3, p.63 Arighetti, where Epicurus, indicating that he uses the term συμπτώματα ('properties') in its common meaning, says: κατὰ τὴν πλείστην φορὰν τῷ ὀνόματι χρώμενοι.

<sup>49</sup> Porph., *De Abstin.* II 40, IV 10, IV 16, pp.170 I.10, 243 I.21 f., 254.12 f. Nauck; *Ad Gaurum* XVI 6, p.57 Kalbfleisch (=ps.Galen); Dio Chr., *Or.* 19.22.12 Von Arnim; Libanius, *Or.* XXX 35.3 Foerster.

<sup>50</sup> See *PHP* II 2.10-1 (*SVF* II 895), with Pachet (1975) 241, 243. See *infra*, p. 206 ff.

<sup>51</sup> Cf. *infra*, p. 210 f.

<sup>52</sup> Le Boulluec (1975) 302 f. and *id.*, 'Les Représentations du Texte chez les Philosophes Grecs et l'Exégèse Scripturaire d'Origène. Influences et Mutations', in: Robert J. Daly, S.J. (ed.), *Origiana Quinta: Papers of the 5th International Origen Congress* (Leuven 1992), 113.

make-up, which determines his cognitive reactions to stimuli no less than his patterns of action, is created according to the divine plan.<sup>53</sup> There is much that can, and does, go wrong in mental development; but at the same time the Stoics' belief in divine omnipresence and providence also led them to attach positive value to ideas that were generally held. This may be called the theological basis of the Stoic doctrine of the 'common notions' and related assumptions. Their relevance to Chrysippus' procedure will be considered below.

The primary sense of φορά, movement, continued to be felt.<sup>54</sup> Thus at *PHP* III 7.25 (*SVF* II 903) Chrysippus makes a pun on the relation between φέρεσθαι, used here for people rushing forward, and 'φορά', i.e. the κοινὴ φορά. So De Lacy's rendering 'common tendency' has the merit of preserving the connotation of motion and direction. We may note here that Chrysippus also uses the middle verb for the mental inclination towards the belief in question (III 1.23, 25, p.172.18 ἐνενέχθαι; I.21 φέρεσθαι).<sup>55</sup>

It may be asked whether, in this context, φορά, or κοινὴ φορά, is doctrinally loaded. The mere fact that Galen seems to find the expression rather peculiar is insufficient ground for suspecting it is; if 'κοινὴ φορά' were a technical expression, it would, one supposes, have played a much more prominent part in Stoic literature. Yet the passages from Porphyry referred to, *De Abstin.* II 40 in particular, are noteworthy. Here the expression 'κοινὴ φορά' is found in the context of an impressive 'demonology' (II 37-43), based upon what Porphyry calls 'certain Platonists' (II 36.6), which may refer, in an unspecific way, to what Porphyry read in 'Middle Platonist' literature. At II 40, Porphyry argues that, no less than the common run, many philosophers fall victim to the influence of evil demons, who make them adopt perverted ideas about the gods, including the 'best God', with the result that they come to see God as the cause of all evil, disorder and pain. They

<sup>53</sup> Cf. *infra*, 275.

<sup>54</sup> Thus, in a related usage, it indicates an impulse or drive in individual persons and especially in *large groups of people*. Polybius 10.4.3 ἡ τοῦ πλήθους φορά; *ibid.* 30.2.4. Plut. *Galb.* ch.4: φορά πρὸς τὸν νεωτερισμόν; *Them.* ch.2: παῖς ... φορᾶς μεστός.

<sup>55</sup> It is found in material from an even earlier date: see *LSJ s.v.* φέρω VII. 3.B. Hdt. 9.120: ταύτη ὁ νόος ἔφερε; id. 4.11: ἡ τοῦ δήμου φέρει γνώμη, ὥς...; Thuc. I 79; Hdt. 6.110; cf. also *LSJ B Pass.* II.3: ὅπως ἠνέχθη περὶ τοῦ σφυγμοῦ Marcellinus *De pulsibus* (ed. H. Schöne, *Festschrift zur 49. Versammlung deutscher Philologen und Schulmänner*, Basel 1907) 233: 'what was his opinion about the pulse...'.

thereby subscribe to the mistaken ideas held by most people, who pay them high regard in return. Porphyry then writes: 'Those among the philosophers who do not keep far from the common opinion (κοινὴ φορά) get into the same predicament as the masses' (p.170.9 f. Nauck).<sup>56</sup> The idea that God is responsible for evil fits the Stoics more than any other school of thought (taking a rather one-sided representation into account) and is expressed in terms very similar to comparable polemical contexts (SVF II 1168 ff.).<sup>57</sup> The rather peculiar phrase οἱ ... φορᾶς moreover recalls the Stoics' explicit programme of basing their philosophy on the common conceptions (Plut. *CN* 1060A; see below).<sup>58</sup> The expression 'κοινὴ φορά', then, may also be meant to reflect a specifically Stoic expression, given the polemical habit of using the terminology of one's philosophical opponents against them.<sup>59</sup> If so, we would have another instance of the use of κοινὴ φορά for the *opinio communis* (or one form of it) from which philosophical argument starts, in agreement with Chrysippus' terminology and methodology at *PHP* III 1.22 ff.

In ethical and psychological contexts Chrysippus often uses φορά and φέρεσθαι to designate the motion, or activity, of the soul in effecting bodily action and in passion,<sup>60</sup> a sense apparently close to that expressed by the term ὁρμή.<sup>61</sup> De Lacy sharply differentiates

<sup>56</sup> καὶ γὰρ τῶν φιλοσοφούντων οἱ μὴ ἀποστάντες τῆς κοινῆς φορᾶς εἰς τὰ αὐτὰ τοῖς πλήθεσι συνέβησαν; cf. p.170.6 ff. *πεπόνθασι δὲ τοῦτο οὐκ ἰδίωται μόνον, ἀλλὰ καὶ τῶν ἐν φιλοσοφίᾳ διατριβόντων οὐκ ὀλίγοι ...*

<sup>57</sup> Polemic against Stoic theology is found elsewhere in Porphyry's treatise as well. See *De abstin.* III 20.1-3 (SVF II 1152), where a so-called *παραβολή* by Carneades is quoted; for anti-Stoic polemic on a different topic, see III 22.5, on which see *infra*, p.175.

<sup>58</sup> In the Budé edition (Porphyre, *De l'Abstinence*, Paris 1979), Tome II, 34 ff., Bouffartigue argues that the argument is directed against Christian philosophers such as Origenes. It is possible, of course, that Porphyry is lumping different groups of philosophers together. His description of the mistaken idea of God held by the anonymous philosophers referred to also recalls Gnostic views.

<sup>59</sup> Cf. *supra*, p. 88 n. 90.

<sup>60</sup> *PHP* IV 2.10 ff. (SVF III 462); Plut. *Virt. Mor.* ch.10, 450C (SVF III 390) ἄλλη βιαιοτέρᾳ φορᾷ χρωμένους... Plut., *SR* 1046B (SVF III 418), from the second Bk. *On the Good*: καθ' ἑτέρας δὲ φυσικὰς φορὰς ἐκτρεπομένων, ὃ ἔλεος γίνεταί. Here, remarkably enough, φυσικὰς is used in connection with a passion. Cf. *PHP* IV 6.8, p.272.3 (SVF II 473); IV 6.9, p.276.6 (SVF III 475). Note that Chrysippus is content to speak of φοραὶ and applies no analysis in terms of συγκατάθεσις and ὁρμή: see further below in text.

<sup>61</sup> Cf. the definition of ὁρμή as a φορά, i.e. movement, of the soul: SVF III 169, 377.

this usage, as found several times in a fragment from the *On the Passions* (PHP IV 2.10-12), from its sense at III 1.22 ff,<sup>62</sup> where a belief, i.e. a purely *cognitive* event, is indicated. It would however be rash to posit a wide divergence in usage. The Stoics appear to have recognized an appetitive aspect of reason and to have endowed reason with a natural inclination towards truth, consistency, clarity and the like.<sup>63</sup> Chrysippus and other Stoics, moreover, tended to describe purely cognitive acts in *physical* terms, i.e. as specifiable mental events in the pneumatic soul.<sup>64</sup> Thus φορά served to designate the motion of reason both as a purely cognitive event and as an ingredient in the psychology of action.

The 'appetitive aspect' of cognition is evident from a few other texts which elucidate the background against which Chrysippus' appeal to the κοινή φορά should be considered. In an account of οἰκείωσις,<sup>65</sup> Cicero, *Fin.* III 17-8 (*SVF* III 189) lists 'cognitions' (*cognitiones*, καταλήψεις) among the things 'to be taken because of themselves' (*propter se adsciscendas*), because 'they have something in them that as it were comprises and contains truth'; hence the delight children take in discovering things by reasoning, even if they have no particular interest in doing so. People, Cicero says, are even more 'estranged' (*alienatos*) from false assent than from the other things contrary to nature. Now ὁρμή ('impulse'), on which οἰκείωσις hinges, is involved here—and this poses a problem as to whether it played a role in purely cognitive events. This implication becomes clearer from Arius Didymus *ap. Stob. Ecl.* II p.82.5 ff. W. (*SVF* III 121), where αἴσθησις, explained as κατάληψις, features among the indifferents stirring impulse (ὁρμῆς κινητικά), or 'things according to nature.'<sup>66</sup> Passages such as these pertain to

<sup>62</sup> De Lacy *ad* III 172.16 f. Further, De Lacy is mistaken in suggesting that the sense of φορά at III 7.25, p.216.25, 27 (from the *On the Soul*) differs from that of III 1.22, p.172.15: here the context clearly shows that the κοινή φορά must be meant: cf. *infra*, p. 216.

<sup>63</sup> Cf. Frede (1986) 101. Compare the use of ὁρμή in a Stoic definition of ζήτησις which we have no reason to consider non-standard: see *infra*, p.167.

<sup>64</sup> For assent (συγκατάθεσις), which plays a part both in epistemology and in the psychology of action, see Sextus, *M.* VII 152; cf. Kerferd (1978) 255. Thus assent may be accompanied by a semi-conscious nod of the head and, on Chrysippus' line of thought, this must reveal a motion of the soul: see PHP II 2.21 (*SVF* II 895) and *infra*, p. 207.

<sup>65</sup> Generally believed to derive from an orthodox Stoic handbook from the time of Diogenes of Babylon or his pupil Antipater of Tarsus: see Pembroke (1971) 120 f. with n.31 for further references; Inwood (1985) 310 (n. 20).

<sup>66</sup> Cf. *ibid.* p. 80.22 ff. W. (*SVF* III 136); D.L. VII 52 (*SVF* II 71).

what may be called the (normative-)psychological basis of epistemology;<sup>67</sup> they bear out the Stoic view that cognitive ('kataleptic') presentations command assent directly.<sup>68</sup> The mental presentation connected with the 'common tendency' (cf. III 1.25, p.172.21 συναισθανόμενοι) cannot be cognitive in view of III 1.15 (see below). But, as a non-cognitive true presentation, it surely belongs to the wider category of convincing (πιθαναί) presentations, which induce the mind to lend assent to them (Sextus, *M.* VII 242 ff. = *SVF* II 65). This mental event may, as a motion of reason, be designated by the term 'κοινή φορά'. In due course I shall return to the property of being convincing which marks the presentation at issue (Chs. 6, 7).

The early Stoics appear to have been often content to refer to the soul's movements without bothering about a clear-cut distinction between cognitive and appetitive events in the soul, and in these cases it is not useful to try and detect theoretical schemes such as those reconstructed by modern scholars from other sources. Chrysippus often does not speak of φαντασία, συγκατάθεσις, ὁρμή in contexts where one would expect him to do so. Thus συγκατάθεσις may have come to the fore in the context of the debate on freedom of will and determinism, much less in psychological and ethical discussions, where Chrysippus has the term φορά and its derivatives do the simple job of indicating the movements of reason. As we have seen, he was here in a position to appeal to common parlance. This approach, as well as the widespread idea of an 'appetitive aspect' of reason, may help to explain the classifications

<sup>67</sup> We here touch upon the controversy as to whether or not the Stoics recognized 'cognitive impulse (ὁρμή)'; see esp. Ar. Did. *ap. Stob. Ecl.* II p. 88.1-2 W. (*SVF* III 171): Πάσας δὲ τὰς ὁρμὰς συγκαταθέσεις εἶναι, τὰς δὲ πρακτικὰς καὶ τὸ κινήτικόν περιέχειν, which seems to imply the existence of non-practical ὁρμαί. See A.J. Voelke, *L'idée de volonté dans le Stoicisme* (Paris 1973) 51 ff. esp. 52 n.1. and D. Tsekourakis, *Studies in the Terminology of Early Stoic Ethics* (1974) 77 f. Objections were advanced by Striker (1980) 78 n.55 and Inwood (1985) 101 with n.271. Yet passages such as the one quoted in our text should warn us not to draw too sharp a borderline between theory of action and epistemology. It is often disregarded that Chrysippus, like Aristotle, treated epistemological matters as part of psychology (a physical subject): see e.g. D.L. VII 50, with Mansfeld (1986) 362 f. Thus Inwood tries to remove *Fin.* III 17 f. (see *supra*, n. 65) altogether as evidence for early Stoic doctrine and fails to take the passages from Stobaeus (Arius Did.) into account.

<sup>68</sup> This has been unnecessarily called into question by Sandbach (1971a) 14 f. (1971b) 37 n. 34, recently followed by Inwood (1985) 75 ff. See Görler (1977) 91, who convincingly argues that the texts referring to this power of cognitive presentations should be accepted as evidence for early Stoic doctrine.

in the above passages in Cicero and Arius Didymus. However, we are under no obligation to suppose that this 'appetitive aspect' was indicated by the technical term 'ὁρμή', or that the concept expressed by it also played a part in epistemology. Hence I do not wish to argue that at *PHP* III 1.22 ff. (*SVF* II 886) we encounter ὁρμή in the guise of φορά. Yet there is some evidence in support of our assumption that Chrysippus believed the φορά to be a natural inclination of the soul, and therefore to possess a certain epistemic value.

Clearly Chrysippus' mode of argument is not as unmethodical as it is made out to be by Galen.<sup>69</sup> On the contrary, the function of the 'common tendency' as the starting-point for philosophical inquiry corresponds to that accorded to naturally arising conceptions, i.e. ἔννοιαι and προλήψεις;<sup>70</sup> and to the special class of 'common conceptions' (κοινὰ ἔννοιαι) in various other sources.<sup>71</sup> Chrysippus was very punctilious in matters of terminology,<sup>72</sup> and it was he who contributed greatly to the delineation of the various types of concepts expressed by these technical terms (Plut. *CN* 1059C). Hence he may have deliberately refrained from appealing here to one of the above kinds of concept, his reason, presumably, being that these are characterized by clarity.<sup>73</sup> Apparently φορά, for Chrysippus, lacks this connotation.

But the *methodological* correspondence we have just noted must be taken into account.<sup>74</sup> The following additional evidence may thus be adduced to illustrate Chrysippus' method: according to Cicero, *Ac.* I 42, from the *notiones rerum* (= προλήψεις or ἔννοιαι)<sup>75</sup>

<sup>69</sup> See esp. *supra* p. 156.

<sup>70</sup> Plut. *CN* 1060A (not in *SVF*): ἀφ' ὧν [scil. κοινὰ ἔννοιαι καὶ προλήψεις] μάλιστα τὴν αἵρεσιν ὡς περ ἐπιβαθρῶν ἀνα(βαίνειν) δοκοῦσι καὶ ὁμολογεῖν τῇ φύσει. (Cherniss ὡς σπερμάτων ἀνα(βλαστειν)); cf. Philo, *De congr. erudit.* ch. 146; Sen. *Ep.* 120.4, concerned with the first notion we have of moral virtue, states: *Natura nobis semina dedit scientiae, scientiam non dedit.* Cf. Bréhier (1951) 65 ff., who explains the role of the common notions within the framework of the Stoic concept of dialectic, cf. Long (1978) 113 ff.

<sup>71</sup> On the common notions see Bréhier (1951) 65 ff. Sandbach (1971) 22 ff. Schian (1973) 136 ff. (145 ff. on the beginning of Chrysippus' argument in the *On the soul*); Striker (1974) 97 ff. R.B. Todd, 'The Stoic common notions: a re-examination and reinterpretation', *Symbolae Osloenses* 48 (1973) 47 ff. Long-Sedley (1987) vol.1, 252 f.

<sup>72</sup> Cf. e.g. *PHP* IV 4.8 (*SVF* III 440).

<sup>73</sup> See *CN* 1083C, *SR* 1074B; and 1047B with Cherniss' comments; Sandbach (1971) 32 ff. See also *CN* 1059 with Sandbach (1971) 22.

<sup>74</sup> Cf. Schian (1973) 145-7.

<sup>75</sup> On the translation of these terms, cf. Cic. *Luc.* 30. The terms προλήψεις and ἔννοιαι were often used interchangeably, see Sandbach (1976) 23 ff.



'not only the beginnings but also certain broader roads toward the discovery of knowledge are found.' D.L. VII 54 reports that Chrysippus called πρόληψις, alongside αἴσθησις, a 'criterion of truth'.<sup>76</sup> Furthermore, Plut., fr. 115 Sandbach (SVF II 104) states that the natural notions provide the Stoic solution of the 'problem of the Meno' (Plato, *Meno*. 80e) concerning inquiry (ζητεῖν), i.e. striving to obtain insights, and discovery (εὐρίσκειν). Both terms are linked also in two parallel testimonia presenting Stoic definitions of inquiry and discovery (SVF II 102, 103): inquiry (ζητήσις) is defined as the 'impulse (ὁρμή) aimed at cognizing (καταλαβεῖν) the subject of inquiry by means of certain signs (σημείων)' (SVF II 102). Discovery coincides with the moment of cognizing, or grasping, and so is called the 'limit and end of inquiry'.

Similarly, Chrysippus refers to his discussion on the seat of the mind as an 'inquiry' (ζητήσομεν), which starts from a common notion, viz. the κοινὴ φορά (PHP III 1.22).<sup>77</sup> That this procedure was more regular is also indicated by Chrysippus' information that it was 'similar' (παραπλησίως, *ibid.* p.172.15) to that followed in the first half of Bk. I, which was concerned with the substance of the soul. This part of the treatise is almost completely lost. But the role of common opinion there is suggested by Chrysippus' statement at III 1.10, which summarizes the preceding discussion: 'The soul's substance is connate (σύμφυτον) *breath* (πνεῦμα)<sup>78</sup> as long as life's healthy breath (εὐπνοία) is present in the body.' The latter part of this sentence is clearly based on the common observation that life and respiration coincide.<sup>79</sup> Since Chrysippus found life commonly associated with, or attributed to, breath (πνεῦμα), he could easily represent this idea as an anticipation of the Stoic doctrine, which, in fact, it ultimately is.<sup>80</sup> Chrysippus also used the common notion in question for a syllogism preserved by Calcidius, *In Tim.* ch.220,<sup>81</sup>

<sup>76</sup> Cf. Striker (1974) 96.

<sup>77</sup> Chrysippus uses ζητήματα to refer to his demonstration at PHP III 8.4, p.224.9 (SVF II 908). Two books *On Inquiry* (Περὶ ζητήσεως) figure in the catalogue of Chrysippus' works among a group of titles evidently concerned with dialectical subjects (D.L. VII 191 = SVF II 13). This treatise may well be the source of the definitions given under SVF II 102, 103 and partly quoted in the text.

<sup>78</sup> For πνεῦμα as breath ('material' πνεῦμα), see also *supra*, pp. 77 ff.

<sup>79</sup> With Chrysippus at III 1.10 compare Diogenes of Babylon's syllogism quoted at PHP II 8.40 together with Galen's discussion; see *supra*, p. 79 ff.

<sup>80</sup> See Onians (1951) 53 ff., 171 ff.

<sup>81</sup> Calc. *In Tim.* ch. 220, p. 232.16-19 Waszink: Item Chrysippus 'una et

which may be taken to express the train of thought implied by III 1.10. Hence Von Arnim may have been right in ascribing this syllogism to the first half of the first Bk. *On the Soul*.<sup>82</sup>

If the above is correct, Chrysippus followed the procedure of transforming common experience into technical knowledge (presented in syllogistic argument). Our following step is to consider the way that Chrysippus develops an argument on the basis of certain common notions concerned with the location of the passions (Ch. 2.4-2.7).

#### 2.4. *Passions and Synaisthêsis : Traditional Ideas*

According to Chrysippus, the common belief that the regent part resides in the heart springs from the 'inner perception' of the passions (III 1.25, p.172.21 ὡσανεὶ συναισθανόμενοι). Among the passions he then mentions (p.172.23 οἶον—24 θυμοῦ), he singles out the physical effects of θυμός for brief description (p.172.24 ὡσανεὶ—26 ἐμφάσεις).

Solmsen has rightly called the general conviction that pleasure and pain are felt in the heart a much used trump-card in support of the cardiocentric theory.<sup>83</sup> References to anger, fear and joy, we may add, were also used for the purpose.<sup>84</sup> It would appear that the view that the passions arise perceptibly in the heart was hardly ever contested between the more prominent participants in the debate; those who regarded the head, or brain, as the centre of both reason and passion may, throughout the centuries, have been a minority whose voice was rather weak.<sup>85</sup> A noteworthy example is

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eadem', inquit, 'certe re spiramus et vivimus; spiramus autem *naturali spiritu*, ergo etiam vivimus eodem spiritu; vivimus autem anima, *naturalis* igitur *spiritus* anima esse invenitur.' The same argument is referred to at ps.Alexander, *Mantissa*, pp.117.30-118.4 Bruns. Here the expression τοῦ συμφύτου πνεύματος used by Chrysippus at *PHP* III 1.10 is also found.

<sup>82</sup> See *SVF* II 879, which also contains the complete context of ch.220; this consists of arguments and descriptive passages which form an exposition of the main lines of Stoic psychology. It cannot be proven that all these passages are ultimately derived from the *On the Soul*, let alone from its first book, as Von Arnim's treatment suggests; see further *supra*, p. 136 n. 11.

<sup>83</sup> Solmsen (1961a) 196.

<sup>84</sup> See Hp. *Morb. Sacr.* ch.17.6 ff. (pp. 86-88 Grensemann; *infra* in text); Arist. *PA* Γ 4.666a11-4; Epic., fr. 311 ([2] 66.5 Arighetti), 313 Us. (not in Arighetti; see *infra* in text); Lucretius III 140 ff. (see *infra* in text); Philotimus *ap. Schol. ad Il.* K 10 = fr.1 Steckerl. Alex. Aphr. *De an.* p.97.1 ff. Bruns.

<sup>85</sup> Apart from Hp. *Morb. sacr.*, see *infra*, p. 173, on Epicurus' medical opponents; but also certain dissident Stoics chose the head, or brain: see *PHP* III 8.3

the author of the Hippocratic tract *On the Sacred Disease* (later 5th c. BCE), who unequivocally assigns both the intellect and the emotions to the brain (14, pp.82-84 Grensemann).<sup>86</sup> Interestingly, he also refutes the argument based on the effects of passion that are felt in the heart, arguing that the physical changes in question manifest themselves everywhere in the body; further, if the heart shows a more vehement reaction, this is because it is the centre of the blood-vessels (17.6-9, p.88-90 Grensemann).<sup>87</sup>

It is difficult to decide, on the basis of our evidence, whether Herophilus and Erasistratus also transferred the passions to the brain—although one is inclined to assume that they did.<sup>88</sup> However that may be, in *PHP* the view of the heart as the seat of the passions emerges as a forceful conviction. At *PHP* II 7.16 ff., as we have noticed, Galen rejects Chrysippus' version of the argument from the passions as arbitrary on the grounds that also other bodily parts exhibit physical changes during passion (see above, ch. 2.1.). Yet he grants the possibility that, in times of fear, grief, distress, θυμός and *all* the other passions, the heart departs further from its natural state than the other parts.<sup>89</sup> Even so Chrysippus' argument does not prove what it claims to prove, since it would pertain to the spirited and appetitive functions only. Here, then, Galen appears to make a concession for argument's sake. But when he comes to speak of Chrysippus' appeal to the perception of the passions for the second time (*PHP* III 1.18 ff. especially 26 ff.), he happily enlists the argument for his own case. He not only argues that Chrysippus endorses Plato,<sup>90</sup> but commends the argument as fully acceptable

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with *supra*, p. 223; cf. III 1.12, p.170.19 οἱ περὶ τὴν κεφαλὴν [scil. εἶναι τὸ ἡγεμονικὸν λέγοντες].

<sup>86</sup> On this passage cf. Mansfeld (1992) 111 f.

<sup>87</sup> Cf. Solmsen (1961a) 155. On Galen's attitude towards this tract see *supra*, p. xxxiii.

<sup>88</sup> Solmsen (1961a) 195 f. suggests that Apollonius of Rhodes, *Arg.* III 761 ff. contains a vague hint to that effect. Von Staden (1989) 248 f. assumes that Herophilus, following the author of the Hippocratic tract *On the Sacred Disease*, believed the brain to be the seat of the emotions. Galen's reticence about the views of Herophilus and Erasistratus may also be significant. As to the latter, cf. Gal. *Puls. diff.* VIII, p.759 K. = Erasistratus fr. 205 Garofalo, recording that 'in the *On fevers* Erasistratus himself clearly asserted that not only vital power resides in the heart but also psychic power.' Contrast, however, the report at *PHP* I 6.3 (Erasist. fr. 203 Garofalo = *SVF* II 997, second text), on which see *supra*, p. 78.

<sup>89</sup> This would indicate that an essential function is at issue on which a demonstrative premise may be based: see *supra*, p. 53 f.

<sup>90</sup> On this polemical motif, see *supra*, p. 92.

in scientific discourse: Chrysippus could have given no clearer proof that the θυμός arises from the heart and so that the θυμοειδές is located there.<sup>91</sup> Shifts such as these are typical of a treatment in which the polemical motivation in each separate context may prevail over consistency in presenting one's own opinions. But we should also keep in mind that Galen thought he had proved by experimental means that the pulsative faculty originates in the heart (e.g. *PHP* II 6).<sup>92</sup> And palpitation as a particularly vehement kind of pulsation is very prominent among the manifestations of passion on which the argument in question was based.

To show that Chrysippus supports Plato's view, Galen quotes from *Tim.* 70a-c (*PHP* III 1.31) where, in terms very similar to those used by Chrysippus, activated anger and angry persons are described, as well as the leaping of the heart in anticipation of danger. We need not doubt that Plato too appeals to common experience. But apart from everyday observation, descriptions of θυμός such as these were traditional, as is particularly clear from extant specimens of the literature "*On anger*" (Περὶ ὀργῆς).<sup>93</sup> It is therefore not surprising that Chrysippus' text resembles Plato's (cf. III 1.33).

It is worth comparing the versions of the argument from the passions which before Chrysippus had been employed by Aristotle, Strato and Epicurus. Among Aristotle's series of arguments in support of the primacy of the heart (*PA* Γ 4.665b28-66b37)<sup>94</sup> we have (666a11 ff.):

... the motions effected by pleasant and painful things and in general belonging to all felt sensation (or 'feeling', αἰσθήσεως) are observed to start therefrom [i.e. from the heart] and to end there.<sup>95</sup>

<sup>91</sup> Cf. *PHP* VI 3.1 ff. esp. 4 ff. where Galen presents it as one of the conclusive arguments that have been put forward in the discussion in *PHP* II-III. Here the criterion of departure from natural activity appears again as fully applicable; cf. VI 1.21 and *supra*, p. 53 n. 71 with text thereto.

<sup>92</sup> Cf. *supra*, p. 44.

<sup>93</sup> De Lacy *ad* 172.24-6 compares Philod. *De ira* col. VIII 20 ff. (pp.26 f. Wilke = 68 f. Indelli). Cf. the notes *ad loc.* and pp. xxxviii, 117 f. 230 f. in Wilke's ed. as well as Indelli's comments (156 f.); Sen. *De ira* I 1.3-4; III 4. 1 ff. with Fillion-Lahille (1984) 117 f. 130 f.

<sup>94</sup> Directed against those who held that head was the ἀρχή of the blood-vessels (φλέβες) as carriers of sensation (665b28 ff.). These include, at least, Diogenes of Apollonia, Syennesis and Polybus: see *HA* Γ 2.511b24, 31, 512b11, where Aristotle mentions these men and quotes from their respective accounts of the vascular system (cf. 513a11-2). For the doctrine at issue see also Hp., *Morb. Sacr.*, esp. ch.3. VI, p.366 L., influenced by Diogenes; cf. Solmsen (1961a) 155.

<sup>95</sup> αἱ κινήσεις τῶν ἡδέων καὶ τῶν λυπῆρων καὶ ὅλως πάσης αἰσθήσεως ἐντεῦθεν

The word αἴσθησις has a notoriously wide range of meaning;<sup>96</sup> the above usage shows it to include, apart from perception, feelings in the sense of experiences—among which pleasure and pain were seen as basic forms already before Aristotle.<sup>97</sup> From Aristotle onwards, αἴσθησις is widely recognized as a function and manifestation of the *soul*, or, specifically, the ἡγεμονικόν. This is also the Stoic view.<sup>98</sup> These facts help to explain how references to the perception of certain passions could have become so important in the debate on the location of the ἡγεμονικόν, i.e., primarily, the cognitive functions of perception, thought, volition. Although Aristotle elevated αἴσθησις to the status of a cognitive faculty very close to νοῦς, he also used the term and its derivatives with reference to 'felt sensations' ('feelings'). A very characteristic example, which well elucidates the argument we have just quoted, is to be found at PA B 10.656a14 ff., which is a critique of *Tim.* 75a-c. Aristotle here denies the brain any connection with the sense organs, but the question whether the brain has a place in the mechanism of perception leads into the other whether it is *sensitive*.<sup>99</sup>

Highly relevant in this connection is an argument of Strato of Lampsacus (c. 340-269 BC) paraphrased in ch. 4 of the incomplete (pseudo-) Plutarchean essay *Whether Desire and Grief Belong to the Soul or the Body*.<sup>100</sup> This passage (fr.111 Wehrli) is worth quoting in full:

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ἀρχόμεναι φαίνονται καὶ πρὸς ταύτην περαίνουσαι. Cf. Alex. Aphr., *De an.* p.97.1-3 Bruns.

<sup>96</sup> Solmsen (1961b) 241 ff.

<sup>97</sup> Cf. the list of αἰσθήσεις given at Plato, *Theaet.* 156b: ὄψεις, ἀκοαί, ὀσφρήσεις, ψύξις, καύσις, ἡδοναί, λύπαι, ἐπιθυμίαι, φόβοι, cf. Solmsen (1961b) 245. For Aristotle see also *De an.* A 1.403a7 ff. ὀργίζεσθαι, θαρρεῖν, ἐπιθυμεῖν, ὅλως αἰσθάνεσθαι, and cf. Alex. Aphr. *De an.* p. 97.1-3 Bruns.

<sup>98</sup> See ps.Plut. ('Aët.'), *Plac.* IV 23.1 (SVF II 854): 'The Stoics [believe that] the [bodily] affections (πάθη) are in the affected parts, and the perceptions (αἰσθήσεις) in the regent part (ἡγεμονικόν).' Cf. next n.

<sup>99</sup> Cf. PA B.652b4 f. 656a23 f.: the brain cannot be the seat of sensation, for it is itself devoid of sense.

<sup>100</sup> ΠΟΤΕΡΟΝ ΨΥΧΗΣ Η ΣΩΜΑΤΟΣ ΕΠΙΘΥΜΙΑ ΚΑΙ ΛΥΠΗ; common Latin title: *De libidine et aegritudine*, most recent edition by F.H. Sandbach in the Loeb Plutarch (*Moralia* XV) as the first of 'Tyrwhitt's Fragments' (see Thomas Tyrwhitt [ed.], *Fragmenta duo Plutarchi*, London 1773). On its nature and authorship see the introduction by Sandbach (32 ff.), who argues cautiously for attribution to Plutarch, or at least someone closely associated with him. The same discussion is also reflected by ps.Plut. ('Aëtius'), *Plac.* IV 23. The view here given to Strato (§ 3 = fr. 110 Wehrli) agrees with the passage from ps.Plutarch.

Some have ascribed all these [scil. the πάθη] indiscriminately to the soul, like Strato the scientist, who declared that not only our desires but also our griefs, not only our fears and envies and malicious pleasures at others' misfortunes but also our suffering (πόνους) and pleasures and pains and in general all perception (αἴσθησιν) come about in the soul. According to him, everything of this sort is a psychical event; we do not have a pain in the foot when we stub our toe, nor in the head when we crack it, nor in the finger when we gash it. Nothing has any perception (ἀναίσθητα) except the dominating part of the soul (ἡγεμονικόν), and its perception (αἴσθησιν) is what we call pain. One may compare the way we think that a noise which in fact sounds in our ears is outside us; we add to the perception (αἴσθησει) an estimate (προσλογιζόμενοι) of the distance between the origin of the noise and the dominating part. Similarly we think that the pain resulting from a wound is not where it is perceived (τὴν αἴσθησιν εἴληφεν), but where it originated, as the soul is drawn towards the source that has affected it. Hence when we bump into something, we often instantly contract our eyebrows, and sometimes catch our breath, while the soul's dominating part rapidly refers the perception (αἴσθησιν) to the part which received the knock. Again, if our limbs are secured by bonds (there is no feeling in our extremities, and if we are wounded,) we press hard with our hands, resisting the transmission of the injury and squeezing the blow to keep it in the parts that have no feeling (ἀναίσθητα), so that it does not become a pain by making contact with the part of us that has understanding (τὸ φρονεῖν). This is the explanation given by Strato for many similar cases, as might be expected.<sup>101</sup>

Strato, like Aristotle, treats the πάθη as forms of αἴσθησις, putting them on a par with such sensory perceptions as hearing a sound. That the πάθη qua αἰσθήσεις are events in the central part of the soul is demonstrated by reference to the contracting of our eyebrows and the catching of our breath. Obviously, these empirical phenomena are also relevant for determining the location of the ἡγεμονικόν.<sup>102</sup> That for Strato αἴσθησις entails thought is clear from his clever remark about the realization of distance being added to one's sensation of hearing; and also from his reference to the act of squeezing to prevent a blow from being transmitted to the *part that has understanding*, that is to say keeping it in those parts that are

<sup>101</sup> Transl. Sandbach, slightly modified.

<sup>102</sup> Strato is recorded to have held the ἡγεμονικόν to reside in the forehead 'between the eye-brows' (ἐν μεσοφρύφῳ): see ps.Plut. ('Aët.'), *Plac.* IV 5.2; Tert. *De an.* 15.5 (p.19.33 Waszink) (= fr. 119 Wehrli). On Strato's psychology see also L. Repici, *La natura e l'anima: Saggi su Stratone di Lampsaco* (Torino 1988), ch. 1, esp. p.11 (on Aët. IV 5.2).

ἀναίσθητα. There is no αἴσθησις without thought.<sup>103</sup> Strato, the third scholarch of the Peripatos, flourished at the beginning of the Hellenistic period; his historical position lends additional value to this passage as a testimony to the development of theories of self-perception.

I now turn to Epicurus. A number of scraps of papyrus text (*PHerc* 1012)<sup>104</sup> containing exegetical remarks on one of his treatises—we do not know which—by Demetrius Laco (c. 140 BCE) show that he too advanced a version of the argument from the passions. Although the text is quite damaged, the lines of relevance to our argument (col. XLVI.1 ff. Puglia) are still intelligible enough to be used here.<sup>105</sup> Epicurus is said to have dealt with the problem of the seat of the rational part, which he held to be among those that admit an empirical ('pragmatic') and rational inquiry.<sup>106</sup> He went on to adduce the perception of passions in the heart as his first argument in support of the cardiocentric outlook (col. XLVII Puglia):

[?] who say (?),<sup>107</sup> it is necessary that a movement<sup>108</sup> takes place in the act of thinking something and feeling grief [or: pain]. Where precisely does the movement and passion make themselves felt? Manifestly the pull takes place in the direction of the chest.<sup>109</sup>

Epicurus seems to have aimed his argument primarily against medical authorities who had located reason (λογισμὸν) in the head (col. XLVII.10 ff. Puglia).<sup>110</sup> Like Aristotle, he refers to grief or pain

<sup>103</sup> Sandbach (p. 46, n.a) aptly compares Plut., *Soll. Anim.* 961A-B (fr. 112 Wehrli), where Strato argues there is no perception (αἴσθησις) without mental attention. Cf. *Simpl. In Arist. Phys. V 4 Comment.* p. 965.7 ff. Diels (fr. 74 W.)

<sup>104</sup> See Demetrio Lacone, *Aporie Testuali ed Esetiche in Epicuro (PHerc 1012): Edizione, traduzione e Commento a ...* E. Puglia (Napoli 1988).

<sup>105</sup> On these passages see also Mansfeld (1990b) 3177 ff. Note that De Falco's text (col. 29.1 ff.), which is used by Mansfeld, differs from Puglia's more recent edition at a few points; yet the drift of our passage is the same in both editions.

<sup>106</sup> Col. XLVI.1-10, esp. 6-8: 'for the object of inquiry belongs to the evident things, since fears need no logical arguments ...' Cf. Ep. fr.313, p. 317.16-20 Usener.

<sup>107</sup> A number of authorities seem to be referred to as those to whom Epicurus attributes the ensuing argument, which he endorses.

<sup>108</sup> On this translation of ἐπιβάλλ[λε]ιν see Puglia's commentary (p. 264).

<sup>109</sup> φαμένων ὡς ἐπιβάλλ[λε]ιν δεῖ ἐν τῷ λογίζεσθαι[ι] τι καὶ λυπεῖσθαι. τοῦ μάλισθ' ἡ κείνησις καὶ τὸ πάθος ἔλκει; φανερώς γὰρ ἐπὶ τὸν θώρακα ἡ ὀλκή γέινεται. The punctuation must remain uncertain. On the text see also Puglia's comments (p. 264).

<sup>110</sup> These doctors had probably based their argument on the afflictions of

(λυπεῖσθαι) and presents its physical effects as an obvious fact. No doubt the physical description of grief reflects a traditional conception; the idea of the concentration of the soul inwards is also found in Chrysippus, who designates it by the typically Stoic term συστολή ('contraction').<sup>111</sup> Epicurus too infers the presence of the reasoning faculty directly from the observation of the feelings.<sup>112</sup> One suspects that a close association between the πάθη and αἵσθησις similar to Aristotle's and Strato's approach facilitated Epicurus' line of reasoning.<sup>113</sup>

In the Hellenistic period, the set of ideas contained, in one way or another, in the above passages were further developed in the doctrine of the inner touch (ἐντὸς ἀφή), which may be traced back to the Cyrenaic school (cf. Cic. *Luc.* 76)<sup>114</sup> and appears to have influenced Stoic ideas on self-perception and self-evidence.<sup>115</sup> Συναίσθησις also plays a prominent part in Chrysippus' argument and deserves our attention now.

## 2.5. Chrysippus' Argument from the Passions

Since Chrysippus has denied that there is *clear* perception, the συναίσθησις involved (*PHP* III 1.25, p.172.21 συναισθανόμενοι) must be an unclear form of cognition. Chrysippus does not qualify συναισθανόμενοι by ὥσανεί in order to cloak his defection from the stand he has just taken, as Galen asserts;<sup>116</sup> rather it serves to express that συναισθανόμενοι does not bear the strong sense of inner perception qua cognition (κατάληψις), i.e. assent to a cogni-

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the mind which they diagnosed as afflictions of the head. See also Col. XLVII.7 ff. Puglia. For this argument in the later medical literature see Mansfeld (1990b) 3104 ff.

<sup>111</sup> See e.g. Chrysippus *ap.* Gal. *PHP* IV 7.14 (*SVF* III 466).

<sup>112</sup> Cf. Schol. *ap.* D.L. X 66 [Epic. fr. 311 Usener (= [2] 66.5 ff. Arighetti)]: τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἔκ τε τῶν φοβῶν καὶ τῆς χαρᾶς. And Lucretius III 138-42: sed caput esse quasi et dominari in corpore toto | consilium quod nos animum mentemque vocamus. | idque situm media regione in pectoris haeret. | *hic exsultat enim pavor ac metus, haec loca circum | laetitiae mulcent; hic ergo mens animusque*.

<sup>113</sup> On the relation of the πάθη to αἵσθησις in Epicurus, see also D.K. Glidden, 'Epicurus on Self-Perception', *American Philosophical Quarterly* 16.4 (1979) 297 ff.

<sup>114</sup> On the special status of the sense of touch cf. Solmsen (1961b) 243.

<sup>115</sup> Cf. Aët. *Plac.* IV 8.7 (*SVF* II 852): Οἱ Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφὴν προσαγορεύουσι, καθ' ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβανόμεθα. (For common perception according to Aristotle cf. *ibid.* § 6)

<sup>116</sup> Cf. *supra*, pp. 148 f.



tive presentation.<sup>117</sup> This accords well enough with his affirmation, in the preceding context, that there is no *clear* perception of the seat of the ruling part (III 1.15 οὐτ' αἰσθήσεως ἐκφανοῦς γενομένης), i.e. no cognitive presentation from sense-perception.<sup>118</sup> In technical Stoic contexts, ὥσανεῖ more often serves to indicate that a term applies in a less than full, or strict, but yet analogous manner. Thus Porphyry, *Abst.* III 22.5 (not in *SVF*) lists a number of verbs preceded by ὥσανεῖ as examples of how orthodox Stoics designate various psychic functions exhibited by non-rational animals (e.g. ὥσανεῖ μνημονεύειν, ὥσανεῖ θυμοῦσθαι). These Stoics held that, strictly speaking, these are found in humans as rational creatures only; yet they were willing to describe certain types of animal behaviour analogously to that of humans, i.e. as quasi- or rather *sub-rational*.<sup>119</sup> The distinction by means of ὥσανεῖ is to Porphyry just as vacuous as it is to Galen (cf. *PHP* II 7.9 = text A): compelled by the obvious facts of animal behaviour, the Stoics effectively abandon one of their dogmas.

From a Stoic viewpoint, however, these distinctions should be taken quite seriously. Thus Diocles of Magnesia *ap.* D.L. VII 51, after distinguishing, within the class of presentations resulting directly from sense-perception (φαντασίαι αἰσθητικάι), those which 'arise from what is the case and are accompanied by yielding and assent' (ἀπὸ ὑπαρχόντων μετ' εἴξεως καὶ συγκαταθέσεως γίνονται), continues: 'But among the [sensory] presentations there are also appearances which *as it were* arise from what is the case' (εἰσὶ δὲ τῶν φαντασιῶν καὶ ἐμφάσεις αἱ ὥσανεῖ ἀπὸ ὑπαρχόντων γινόμεναι). The category distinguished here is not that of (patently) false presentations<sup>120</sup> but the broader one of non-cognitive ('akataleptic')

<sup>117</sup> *SVF* II 72, 75. For the ambiguity of αἰσθησις (perception or 'mere' sensation) see in particular the conceptual analysis at D.L. VII (*SVF* II 71); Arius Didymus *ap.* Stob., *Ecl.* II, p.82.5 ff. W. referred to *supra* in text; and cf. Von Staden (1978) 112.

<sup>118</sup> See *supra* p. 144 n. 39 and text thereto.

<sup>119</sup> See Cic. *TD* IV 31; Gal., *PHP* V 5.3 ff.; Plut. *Soll. an.* 961E; Sen. *De ira* I 3.4-8; Chrysippus may also have conceded to non-rational animals an ὥσανεῖ λέγειν: see Varro, *L* 6.56 (*ut loqui*); cf. Pohlenz (1980) 23.

<sup>120</sup> As is the view of Long-Sedley (1987), vol.1, 237 (translation), vol.2, 239, who argue that in early Stoicism ἐμφάσις stands for a presentation that has *no* corresponding *object*: cf. *SVF* II 673, where it is used in connection with the face of the man in the moon. But there is insufficient evidence for this specific technical usage. In the *On the Soul* Chrysippus merely uses the noun in periphrastic combinations as a substitute for the verb φαίνεσθαι and as connoting obviousness: see III 1.25, p.172.26, on which see *infra* in text. A different

presentations, which includes both false and true-but-unclear presentations.<sup>121</sup> So not only does ὥσανεὶ here fulfil a specific technical function in an epistemological context;<sup>122</sup> it also serves to make precisely the same distinction as is implied by Chrysippus, namely that between ‘mere’ presentations without κατάληψις and cognitive sensory presentations, which *per definitionem* involve κατάληψις.<sup>123</sup> In other words, at III 1.25 he uses ὥσανεὶ to indicate that the widespread awareness that the mind is situated in the heart belongs to the former category.

We may consider one further passage from Chrysippus featuring ὥσανεὶ. At III 1.25 (SVF 11 886) we have (ὥσανεὶ γὰρ)<sup>124</sup> ἐκ τῆς καρδίας ἀναθυμιωμένου [...] γίγνεσθαι ἐμφάσεις. Apparently, ὥσανεὶ here pertains to ἀναθυμιωμένου only, not to the whole content of the impressions, or appearances (ἐμφάσεις). The sense that inflamed anger arises as an exhalation from the heart is represented as vague—people do not really *perceive* this physical process. On the other hand, Chrysippus does intimate that people’s awareness anticipates a specific Stoic doctrine.<sup>125</sup> In other texts, such as Diocles’ quoted above, the term ἐμφάσεις denotes presentations as such.<sup>126</sup> Here it refers to the physical impact of inflamed anger as observed in the face and hands, which Chrysippus regards as *evident* (PHP III 5.41 ff. = SVF II 899).

In the following pages I shall relate συναίσθησις as an indistinct mode of cognition of one’s own soul to a specific dialectical background, namely a debate between the Stoics and the Academic Sceptics concerning the foundation of knowledge. This may be a somewhat roundabout approach, but it is justifiable because it will deepen our understanding of Chrysippus’ method.

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usage (‘implication’) is attested by Sextus, PH II 112 and Plut. *De E* 387A, which Frede (1974) 90 ff. considers Chrysippean. See further *infra*, n. 126.

<sup>121</sup> See Alex. Aphr. *De An.* p.71.10 Bruns (SVF II 70); Plut. SR 1056E (SVF II 993); D.L. VII 46 (SVF II 53). Cf. Arthur (1983) 72 f.; Görler (1977) 87 f.

<sup>122</sup> See also Stob. *Ecl.* I, p.136.21 W. D.L. VII 61 (both SVF I 65), where ὥσανεὶ is used in the definition of ἐννόημα; cf. Sextus, M. VIII 409 (SVF II 85).

<sup>123</sup> Cf. *supra*, pp. 164 f.

<sup>124</sup> *add.* Von Müller: cf. the parallel quotation at III 1.29.

<sup>125</sup> See *supra*, p. 148.

<sup>126</sup> See Long-Sedley (1987), vol.2, 446, who, discussing a specifically Academic usage at Sextus, M. VII 169, point out that ἐμφάσις by itself simply means ‘appearance’ (cf. M. X 300). Cf. *supra*, n. 120.

## 2.6. *Self-perception and Oikeiōsis; Academic Criticism*

The term συναίσθησις expresses a key concept in the Stoic doctrine of οἰκειώσις ('familiarization').<sup>127</sup> It is used to designate the animal's perception, or awareness, of itself, or its 'constitution', i.e. the compound of soul and body that it is.<sup>128</sup> This self-consciousness brings about the first natural impulse, directed towards self-preservation, starting a process whereby ever more affinities emerge in accordance with an animal's perception of its developing 'constitution'. Kerferd has aptly called οἰκειώσις a process of self-recognition.<sup>129</sup>

According to Hierocles the Stoic, an animal's self-perception comes about independently of externals because of the tensional movement of the soul, which causes it to meet the resistance of the body (col. IV 39-53).<sup>130</sup> As a result, the soul perceives not only the body but also itself.<sup>131</sup> Interestingly, Hierocles specifies this as the grasping of the separate *parts* of the body and *the soul*. Sense-perception (αἴσθησις), it may be recalled, pertains to corporeal reality,<sup>132</sup> and perception of a corporeal object entails grasping its

<sup>127</sup> For a survey of the use of 'συναίσθησις' by various authors see H.-R. Schwyzler, '<<Bewusst>> und <<Unbewusst>> bei Plotin', in: *Les Sources de Plotin*, Entretiens sur l'Antiquité Classique, Tome V (1957) 355 ff. On the theory of οἰκειώσις see Pembroke (1971) 114 ff. Kerferd (1972) 177 ff., A.A. Long, 'Greek Ethics After MacIntyre and the Stoic Community of Reason', *Ancient Philosophy* 3 (1983) 194 ff., G. Striker, 'The role of *Oikeiosis* in Stoic Ethics', *OSAPh* 1 (1983) 146 ff., T. Engberg-Pedersen, *The Stoic Theory of Oikeiosis: Moral Development and Social Interaction in Early Stoic Philosophy* (Studies in Hellenistic Civilization, 2) Aarhus 1990. The last monograph highlights the idea of self-perception but is open to criticism on account of its one-sided Aristotelizing reading of Stoic psychology; see Tieleman (1995b).

<sup>128</sup> Hierocles *El. mor.* cols. I.34-9; 51-II.3; II.30 ff. III 53 ff. Bastianini-Long; Stob. *Ecl.* II 47.13 W. on which cf. Inwood (1984) 168; D.L. VII 85 (SVF III 178), where συνείδησις is usually emended to συναίσθησις, cf. Inwood (1985) 313 n.42; Long-Sedley (1987) vol. 2, 346; Cic., *Fin.* III 5.16 (SVF III 182: *sensus sui*); Sen. *Ep.* 121.5 (constitutionis suae *sensus*); Plut., *Prof. in virt.* ch. 12, 82F (SVF I 234). The Stoics may have defined οἰκειώσις as the 'perception of what is appropriate', cf. Plut. SR 1038C (SVF I 197); Porph. *De abst.* III 19 with Long-Sedley (1987) vol. 2, 346 (note on 57E). On the meaning of 'constitution', cf. Sen. *Ep.* 121.10: 'constitutio est, ut vos dicitis, principale animi quodam modo se habens erga corpus'.

<sup>129</sup> Kerferd (1972) 186.

<sup>130</sup> For the part of Hierocles' Ἠθικὴ στοιχειώσις preserved on papyrus see now the edition, with translation and commentary, by Bastianini-Long (1992). On Hierocles' treatise, which probably dates from the later 2nd century CE, and its place in the Stoic tradition see Inwood (1984) and Bastianini-Long (1992) 289 ff.

<sup>131</sup> Cf. Pembroke (1971) 118 f., Inwood (1985) 167 ff. and Bastianini-Long (1992) *ad loc.* (pp. 420 ff.).

<sup>132</sup> (Ps.) Alex. Aphr. *Mantissa* p.113.31 ff. Bruns (SVF II 794) uses this

place.<sup>133</sup> At col. VII 50 ff. Hierocles sets out to explain what he calls 'the mode of the presentation' (τῆς φαντασίας τὸν τρόπον) involved in self-perception (I.51, cf. 58 f.). Unfortunately, the papyrus is damaged here; yet some reliable pieces of restored text yield a few interesting points. As an animal grows, the presentation becomes in the course of time clearer and stronger through a process of articulation, whereas at an early age it is confused and 'rough' (VII 52-61).<sup>134</sup> It appears, then, that Hierocles expounds a gradual refinement of the type of presentation under discussion. This process is indicated by the term 'articulation' (διάρθρωσις)<sup>135</sup>, at any rate in relation to the later stage of psychic development, and there are a number of terms designating articulation or the conceptual distinctness which results from it.<sup>136</sup> At col. VII 61 ff. Hierocles goes on to offer three reasons why the initial presentation is

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assumption in an argument against the Stoic doctrine of the corporeality of the soul: εἰ ἡ ψυχὴ σῶμα, πᾶν δὲ σῶμα μῖα γέ τι νι αἰσθήσει αἰσθητὸν τῇ αὐτοῦ φύσει [...], εἴη ἂν καὶ ἡ ψυχὴ αἰσθητή [...]. οὐκ ἔστιν δέ· οὐκ ἄρα σῶμα. As usual, Stoic premises are turned against the Stoics, in this case εἰ—σῶμα and πᾶν—φύσει. 'Alexander' seems to reverse a Stoic argument by which the soul's corporeality was inferred from its being perceived; cf. Chrysippus' arguments referred to *infra*, pp. 185 ff.

<sup>133</sup> See Sextus, *M.* VII 313, giving a version of the argument against κατάληψις from the disagreement concerning the soul's substance, place etc. (see *infra* in text): εἰ ἑαυτὸν καταλαμβάνει ὁ νοῦς, καὶ τὸν τόπον ἐν ᾧ ἔστι συγκαταλαμβάνει· πᾶν γὰρ τὸ καταλαμβανόμενον σὺν τινὶ τόπῳ καταλαμβάνεται. *Quod non*, given the prevailing διαφωνία. The premises of this argument are borrowed from the Stoics—a standard Academic tactic; cf. Couissin (1929/83) 32; Long-Sedley (1987) vol.1, 446; and previous n. The Stoics countered by denying that κατάληψις in the technical sense is at issue: see *infra* in text. The version of the argument Sextus gives at *PH* II 58 contains a reaction to this rebuttal: see *infra* in text (p. 183).

On the mode of cognition of place (τόπος) according to the Stoics cf. Algra (1995) 312 f.: '... since it is part and parcel of a *phantasia* of a body (*sōma*) that the body is three-dimensional, the kataleptic *phantasia* of *topos* presents itself together with the kataleptic *phantasia* of a particular body'. (But Algra also suggests that the Stoics may have considered an additional act of reason necessary.) Cf. *SVF* II 315 (p.114, l.13), 381 for the standard definition of σῶμα by reference to three-dimensionality and resistance (ἀντιτυπία); the latter characteristic is well exemplified by Hierocles' argument. What applies in the case of a cataleptic φαντασία will apply, in a weakened sense, also to an indistinct-but-true non-cognitive ('acataleptic') φαντασία.

<sup>134</sup> See also Bastianini-Long (1992) *ad loc.* (pp. 444-446).

<sup>135</sup> On this concept see further *infra*, pp. 201 ff.

<sup>136</sup> Cf. VII 52 f. as restored by Bastianini - Long: ο[ὕ(τω)ς] ο(ὗν) ἐπ[ειδ]ὼν π[ολὺ ἀ]β[ύ]ξανται τὸ ζῶον ἀ(νὰ) χρόνον μ(έν) .[.] κ(αι) .ο...[.] τ [...] [...]ς ἤδη τ(ῆς) δ(ια)ρθρώσεως, τρανῆς ἢ φαν[τασί]α γίνε[τ(αι)] κ(αι) διηκριβωμ(έν)η. Cf. I.55 τρανότητος and D.L. VII 46 (*SVF* II 53), where μὴ τρανή is said of true but unclear non-cognitive presentations.

At § 10, an anonymous objection against the thesis that all young animals perceive their own constitution (§ 9) is cited.<sup>142</sup> The

<sup>142</sup> This is one of several rhetorical *occupaciones* which are not derived from either Archedemus or Posidonius but are directed against what Seneca presents as the general Stoic view (cf. § 7, 14, 19). As Seneca still deems the

Stoics (cf. *vos*) define constitution as 'the ἡγεμονικόν in a certain condition relative to the body', but how would little children grasp such a subtlety? This objection in turn is rebutted by the claim that children do perceive their constitution, even though they do not know *what it is*, i.e. its definition (§ 11).<sup>143</sup> It is the task of dialectic to develop and articulate this relatively elaborate knowledge.<sup>144</sup> At § 12, it is added that the cognition in question is unclear and inchoate (cf. also § 13: *non satis dilucidus nec expressus*). Further, adult experience is appealed to: '*nos quoque* animum habere nos scimus: quid sit animus, *ubi* sit, qualis sit aut unde nescimus.'<sup>145</sup> So how much less, it is implied, do children possess a clear grasp of these things.

It has recently been demonstrated that the above question-types fulfil a specific function in the organization of philosophical topics. As such they are found in doxographic compilations in particular.<sup>146</sup> Any ancient reader with some philosophical education must have been reminded of the standard topics of scholastic controversy as listed in these compilations. That scholastic doctrines and set topics of philosophical debate are at issue is also implied by the defence that the Stoic doctrine pertains to non-dialectical, i.e. non-expert, cognition. It is true that the assertion that we do not know the answer to each of the questions about the soul has a Sceptical ring. This may seem disturbing, that is, if Seneca's source is the orthodox Stoic Archedemus. However, the emphasis on the unclear and untechnical nature of the cognition in question shows that we need not suppose that Archedemus oddly espouses a Sceptical position in reaction to a Sceptical objection. He should be taken to be arguing that we do not *know* the things listed in the sense that we do not grasp them in an articulated and stable

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topic of self-perception worthy of discussion, it may be asked whether this anonymous and no doubt imaginary interlocutor testifies to contemporary debate, cf. Inwood (1985) 165.

<sup>143</sup> The same view is formulated in a very similar way at Cic. *Fin.* V 24, in an (probably Antiochean) account of οἰκείωσις ascribed to the 'veteres' as well as the *Stoici* (23, *fin.*).

<sup>144</sup> Cf. § 11: *natura facilius intelligitur quam enarratur*, and § 10: *omnia animalia dialectica nasci oportet ut istam finitionem magnae parti hominum togatorum obscuram intellegant*. On the reference to dialectic see further *infra* in text.

<sup>145</sup> On this passage as witness to doxographic tradition, see Mansfeld (1990b) 3139, who, however, stresses the Sceptical background.

<sup>146</sup> See Mansfeld (1990b), esp. 3205 ff. *id.* (1992); Galen's discussion in *PHP* I-II is organized in the same way, see *supra* pp. 8 ff.

manner. For the Stoic position it is sufficient that we have some notion of these things, which does not exclude the possibility of getting to *know* them through means other than simple introspection. So Archedemus takes into account, and deftly remoulds, Sceptical arguments from διαφωνία. This explanation, I believe, is more plausible than the assumption that at § 10-3 Seneca turned away from his source and wrote this passage entirely on his own, although it may perhaps be taken to reflect his usual non-committal stance in regard to questions such as these.<sup>147</sup> But we are not in a position to determine how far he himself has enhanced the Sceptical flavour of his text as compared with his source.

We may now draw several threads together. Hierocles is engaged in a defence of the doctrine of self-perception against Academic opponents, and his account may be designed to meet one or more specific objections resembling the one found at Seneca, *Ep.* 121.10.<sup>148</sup> Both Hierocles and Archedemus describe the presentation (or the *perception*, cf. Hierocl. col. VII 59) in question as dim, imprecise, and the like. Like Archedemus, Hierocles may have focused on the beginning of the animal's development. But the Academics did not confine their attack on κατάληψις to young animals and humans, and Archedemus and Hierocles seem to have met their arguments by positing that a man's rationality, i.e. his conceptual apparatus, is in the process of becoming gradually more refined. Thus adults enjoy a clearer perception of their soul than children do.<sup>149</sup> Yet they lack the clear and certified knowledge which can only gradually be acquired by philoso-

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<sup>147</sup> At *Ep.* 90.29 another list of types of questions concerned with the soul, one of which is the *ubi*, is cited as if an answer has actually been found, cf. Mansfeld (1990b) 3138. Moreover, from *De ira* II 19.3, I 3.4 and I 8.2 f. combined it would appear that Seneca subscribed to the orthodox Stoic position on the mind and its location, although at II 19.3 the wording (*volunt ... quidam ex nostris* etc.) seems non-committal (and only *ira* is said to be *in pectore*); cf. Fillion-Lahille (1984) 51. However, it is pertinent to say that Seneca did not consider the matter important. On the whole he kept aloof from questions discussed by early Stoics which he thought were speculative and inessential to moral progress: cf. *infra*, pp. 185 f

<sup>148</sup> On this polemical motivation in Hierocles, cf. Inwood (1984) 156 f. 167 ff.

<sup>149</sup> As to Archedemus, cf. also Sen., *Ep.* 121.14 ff., where it is argued that each age of man has its own constitution—which may be taken to imply a corresponding succession of different modes of perception (see *supra* in text). On this section, see the literature referred to *supra*, n. 140. This doctrine of successive constitutions is probably Chrysippean; see Kidd *ad* Posidonius F 160 (= vol. II, 575).

phical, i.e. technical, means (cf. the reference to dialectic, Sen. *Ep.* 121.10).<sup>150</sup> Through philosophy the process of οἰκείωσις may thus culminate in perfect self-knowledge, which is the knowledge of one's perfect, or virtuous, soul.<sup>151</sup>

The Stoics insisted on self-perception not only because it was fundamental to ethics—from the beginning when it triggers the urge towards self-preservation ('first ὁρμή') up to the choice of virtue (ὁρμή qua αἴρεσις)<sup>152</sup>—but also because they took it to account for the self-evidence of presentations which they considered necessary for the perception of externals.<sup>153</sup> So the Stoic emphasis on this

<sup>150</sup> Cf. the distinction between technical and non-technical presentations at Diocles of Magnesia *ap. D.L.* VII 51, which causes a difference in perception (θεωρεῖται) between the τεχνίτης and the layman. We may add Diogenes of Babylon *ap. Philod., On Music*, pp.11, 63 Kemke (*SVF* III Diog. 62, p.222, l.34 ff.), who draws a distinction between 'natural' (αὐτοφυῆς) and 'scientific' (ἐπιστημονική) (sense-) perception (αἴσθησις); cf. Epict., *Diss.* III 6.8 (p.252.4 ff. Schenkl), contrasting κοινὴ ἀκοή with τεχνικὴ ἀκοή; and De Lacy (1948) 246.

<sup>151</sup> For συναίσθησις in connection with moral progress (προκοπή) see esp. Plut. *Prof. in virt.* ch.12, 82F (*SVF* I 234), from which it appears that Zeno gave a distinctive role to dreams in determining one's own stage of moral development. (Chrysippus too recognized προκοπή: *SVF* III 691, 510.) In this treatise, Plutarch discusses the perception of one's own moral progress (cf. ch. 1, 75B) from a non-Stoic point of view. Rejecting the absolute nature of evil, he criticizes the Stoic view that the change from vice to virtue is instantaneous and so may go unnoticed, i.e. take place without συναίσθησις (ch.1, 75C-E = *SVF* III 539, second text). It is this view which he ridicules at *SR* 1042F, *Stoicos Absurdiora Poetis Dicere* 1058B, *CN* 1062C. Contrast Ar. *Did. ap. Stob. Ecl.* II 7, p.113 W. (*SVF* III 540), who draws on a more sympathetic tradition and shows that the Stoics did not hold the crucial change to remain unperceived in *all* cases (NB τινὰ σοφόν; cf. Plut. *CN* 1062C) and, moreover, did not take this unawareness to be permanent. The passages from Plutarch provide a typical case of polemical exploitation of minor concessions, or exceptions to the rule, which had often started their career as *obiter dicta* in Chrysippus' original text.

<sup>152</sup> E.g., Stob. *Ecl.* II pp. 72.19 ff., 78.7 ff., 97.15 ff. W. (*SVF* III 88, 89, 91); *D.L.* VII 98 (*SVF* III 87); Sextus, *M.* XI 99 (*SVF* III 38 ff.).

<sup>153</sup> Hierocles, *El. mor.* col. VI 1 ff. Sen., *Ep.* 121.12: *necesse est ... id sentiant per quod alia quoque sentiant*. Oenomaus of Gadara *ap. Euseb., PE* VI 7.10-20 (fr. 16 Mullach, part) turns Chrysippus' doctrine concerning self-perception against his notion of Fate, arguing that our self-perception tells us that we make our decisions according to free will; and, surely, Chrysippus would be most unwilling to give up self-perception, a cornerstone of Stoic epistemology. In the course of this argument, Oenomaus provides further evidence concerning the importance attached by the Stoics to self-perception, cf. the comments by J. Hammerstaedt, *Die Orakelkritik des Kynikers Oenomaus*, Beiträge zur klassischen Philologie 188 (Frankfurt a./M. 1988) 257 ff. On the concept of 'inner touch', which is relevant in this connection, see *supra*, p. 174 On the self-evidence of presentations, cf. also the etymological derivation of φαντασία from φῶς (light) because it reveals both what caused it and itself (*SVF* II 54).



doctrine and the Academic attacks on it are not to be explained as turning on ethics, or psychology, alone. We may compare the presence of a cognitive aspect in some accounts of οἰκείωσις, which show how from birth onward an animal's discovery of reality starts to develop alongside its behavioural pattern.<sup>154</sup>

The Sceptical side of the debate is evidenced by a number of passages<sup>155</sup> which feature the διαφωνία concerned with the soul's seat (among other set topics) as a tool for destroying the soul's self-cognition and hence cognition (κατάληψις) as such. A glimpse of the Stoic line of defence is afforded by Hierocles, *Eth. Stoich.* cols. IV 39 ff. VII 50 ff. and Seneca (Archedemus), *Ep.* 121.10 ff. It is moreover reflected in the version of the διαφωνία argument offered by Sextus, *PH* II 58. In the parallel versions it is argued that the disagreement about the mind's substance, location etc. proves the mind to be incapable of cognizing itself, and so incapable of cognizing at all. At *PH* II 58, however, Sextus says that, given the διαφωνία, the mind (διάνοια) does not even perceive (ὁρᾶ) itself *exactly* (ἀκριβῶς), so it is incapable of cognizing *exactly* (ἀκριβῶς καταλαβεῖν). Probably the word 'exactly' is added here in view of the Stoic rebuttal that the διαφωνία concerning the soul's substance, location etc. merely showed that the mind's self-perception was inexact, or unclear, and so did not rule out the concept of κατάληψις as such. Sextus' move implies that we can properly speak of cognition (κατάληψις), or certified knowledge, only if it is exact. As will be shown, this is unfair inasmuch as it disregards the Stoic view that there are procedures (though not common self-perception alone) through which the διαφωνία concerning the location of the mind can be overcome, and κατάληψις and true knowledge be obtained.

There is a distinct correspondence between the Stoic counter-argument and the way Chrysippus starts his demonstration (*PHP* III 1.10-15, 22-5 = *SVF* II 885-6). In his argument, too, the διαφωνία and the recourse to *unclear* self-perception are found in conjunction. This beginning is just the first step in a more elaborate procedure such as is implied by the Stoic counter-argument as we know it

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Cf. Sandbach (1971a) 13.

<sup>154</sup> In addition to the passages from Hierocles referred to above, cf. Cic. *Fin.* III 17, discussed *supra*, p. 164.

<sup>155</sup> E.g. Sextus, *M.* VII 313, 348 ff., *PH* II 58; Philo, *Somn.* I 30 ff. See Mansfeld (1990b) 3161 ff., 3117 ff.

from Archedemus, Hierocles, and Sextus (*PH* II 58). This encourages the speculation that it was borrowed from Chrysippus.<sup>156</sup> In the passage from the *On the Soul* it clearly is the διαφωνία concerning the location of the regent part with which Chrysippus is concerned; yet later Stoics may have recognized that his solution offers the wider possibility of retaining (self-)perception as such. But this implication may already have been realized and developed elsewhere by Chrysippus himself. In that case his *Against Common Experience* and his *In Favour of Common Experience* may qualify for having been the ultimate source for both the Sceptical argument and the Stoic rejoinder respectively. Chrysippus wrote the former treatise 'in order to discredit the senses' (εἰς διαβολὴν τῶν αἰσθήσεων) and the latter in order to defend them.<sup>157</sup> The former work, which may have contributed to the rise of such biographical fictions as his apprenticeship under Arcesilaos and Lacydes (see above), is in fact known to have been used by the Sceptics.<sup>158</sup>

I argue that the συναίσθησις Chrysippus speaks of in connection with popular belief is an indistinct mode of cognition, involving what is technically called an 'non-cognitive' (ἀκατάληπτος) presentation. Some non-cognitive presentations are false, while others are true but unclear, or incomplete (ἀμυδρός, *SVF* II 70). The same distinction is found at Plut., *SR* 1056F (*SVF* II 993), where various kinds of error are listed.<sup>159</sup> The reaction to all non-cognitive presentations ought to be suspension of judgement (ἐποχή).<sup>160</sup> Assent to the former is called erroneous (διαψευσδομένους), assent to the latter precipitate (προπίπτοντας).

At the beginning of Chrysippus' demonstration we have the

<sup>156</sup> Note Hierocles' appeal to Chrysippus and Cleanthes: see *supra*, p. 179.

<sup>157</sup> Plut. *SR* 1036C (*SVF* II 109, first text); cf. Cic. *Luc.* 75 (*SVF* II 109, third text): '... ille multa contra *sensus* ... at dissolvit idem'. The titles of these treatises (in six and seven books respectively) also feature in the Catalogue, D.L. VII 198 (*SVF* II 16).

<sup>158</sup> Plut. *SR* 1036B (*SVF* II 32); Cic. *Luc.* 87 (*SVF* II 109, second text).

<sup>159</sup> On this passage, see Görler (1977) 87 f., Long-Sedley (1987), vol. 2, 257 f. (*ad* 41E, G).

<sup>160</sup> Couissin (1929) 391 has convincingly suggested that Arcesilaos derived the concept of ἐποχή from the Stoics (Zeno) in order to posit the ἐποχή περὶ παντῶν, arguing that there are no cognitive presentations whatsoever; see also lit. referred to *supra*, n. 43. On his Scepticism see further A.M. Ioppolo. 'Il concetto di «EULOGON» nella filosofia di Arcesilao', in G. Giannantoni (ed.) *Lo scetticismo antico*, vol. 1 (Rome 1981) 145-61; *id.* 'Doxa ed epoché in Arcesilao', *Elenchos* 5 (1984) 317-63; cf. Hankinson (1995) 78-83.

same ingredients: Chrysippus cannot ignore the *διαφωνία* concerning the mind's seat; he attributes it to *unclear* (sense-)perception. Readily assenting to one of the existing views would be precipitate.<sup>161</sup> But the suspension need not be permanent, and an unclear presentation may be turned into a clear, cognitive one. Thus Chrysippus appeals to what he believes to be an unclear *but true* view, viz. that entertained by the majority of people and for that reason providing a suitable starting point. I shall pursue this line of interpretation in due course (Chs. 6, 7).

### 2.7. *The Passions and the Concept of Tekmêrion*

Chrysippus argues that there is no clear perception of the seat of the mind. But he also says that there are no 'τεκμήρια ('indications') from which this may be inferred' (*PHP* III 1.15 = *SVF* II 885). In view of its conjunction with *αἴσθησις*, the term *τεκμήρια* here appears to designate direct inference from observed fact. What line of reasoning Chrysippus means to exclude is suggested by those arguments from Aristotle and Epicurus which refer to the perception of the passions in support of the cardiocentric view (see Ch. 2.4). One should also compare Stoic proofs for the corporeality of the soul which refer to the same physiological states connected with the passions as are described by Chrysippus at *PHP* III 1.25 (*SVF* II 886) and elsewhere, and which, given the axiom that only bodies act upon each other, appeal to commonly observed fact (*SVF* I 518).

A similar argument is used for the corporeality of the *good*, i.e. the virtues, at Seneca, *Ep.* 106.2 ff. (*SVF* III 84). Here the corporeal effects of passions, i.e. the vices, provide indications (*indicia*, § 7) that the passions are bodies (*corpora*); and if this is the case, so must its converse state, virtue, be corporeal, and thus the good (§ 5-7). This point is also argued directly from the physical states corresponding to certain virtues, e.g. vigour in the eyes in courage, relaxation in joy,<sup>162</sup> etc. (§ 7-9). Seneca introduces (§ 2) these

<sup>161</sup> See Clem. Al. *Strom.* VIII 5 (*SVF* II 121, p.37, 1.12 ff.) ... οὐ μόνον οἱ ἐφεκτικοὶ, ἀλλὰ καὶ πᾶς δογματικὸς ἐν τισιν ἐπέχειν εἴωθεν, ἥτοι παρὰ γνώμης ἀσθένειαν ἢ παρὰ πραγμάτων ἀσάφειαν ἢ παρὰ τὴν τῶν λόγων ἰσοσθένειαν. We may be permitted to use this text to illustrate the *early* Stoic use of *ἐποχή*. The epistemic situation outlined by Chrysippus with reference to several opposing views corresponds to the second case where suspension is desirable in Clement.

<sup>162</sup> Apparently as a *εὐπάθεια*: cf. *χαρᾶς* at Plut. *SR* 1042E-F, on which see

arguments with a dose of irony characteristic of his attitude towards many arguments inherited from the venerable scholars of the past—that is to say, the type of ethical arguments which in his view do not really contribute to moral progress. Arguably, he draws these arguments from a treatise by Chrysippus. In a fragment from his *On the End*, Chrysippus argues that the good and the bad are perceptible (αἰσθητά), referring to the passions grief and fear as perceptible ‘through people’s appearances’ (σὺν τοῖς εἶδεσιν), and to their counterparts, the virtues, as equally perceptible (Plut., SR 1042E-F = SVF III 85).<sup>163</sup> Without a doubt, Chrysippus bases this statement on the same type of empirical evidence as Seneca; their argument rests on the assumption that perceptibility and corporeality presuppose each other.<sup>164</sup>

The arguments from Chrysippus and from Seneca (i.e. presumably Chrysippus too) match ps.Plut. (‘Aëtius’), *Plac.* IV 9.17 (SVF I 204, second text), saying that ‘the Sage is recognized through *perception* from his *appearance* in the manner of a τεκμήριον’ (οἱ Στωικοὶ τὸν σοφὸν αἰσθήσει καταληπτὸν ἀπὸ τοῦ εἶδους τεκμηριῶδες).<sup>165</sup> As the expression τοῦ εἶδους indicates, the phenomena through which the presence of virtue is inferred are the same as those mentioned or implied by Chrysippus.

Taken together, these passages suggest what type of evidence and argument is implied by Chrysippus’ statement about τεκμήρια at *PHP* III 1.15. The reference to the concept of τεκμήριον in ps.Plutarch (cf. Seneca’s ‘indicia’, 121.7) is invaluable. Little help is to be got from other sources. As a term designating a particular type of sign-inference, τεκμήριον is used very sparsely in Stoic texts. Though it is sometimes put on a level with σημεῖον (Sextus, *M* VII

below in text.

<sup>163</sup> Chrysippus may have intended to ground objective moral knowledge. Cf. Long-Sedley (1987) vol.1, 377 (*ad* 60 R); vol.2, 373. Note that, in close connection with the passions and virtue, also the actions issuing from these respective mental states are declared perceptible. This may seem odd; yet it may best be taken to refer primarily to psychic activities as well. On the close connection construed by Chrysippus between psychic impulse and bodily action, see *infra*, pp. 210 f.

<sup>164</sup> See *supra*, pp. 177 f.

<sup>165</sup> See also D.L. VII 173 (SVF I 204, first text): κατὰ Ζήνωνα καταληπτὸν εἶναι τὸ ἦθος ἐξ εἶδους. *Ibid.* 130 (SVF III 716): καὶ ἐραθήσεσθαι δὲ τὸν σοφὸν τῶν νέων τῶν ἐμφαινόντων διὰ τοῦ εἶδους τὴν πρὸς ἀρετὴν εὐφυΐαν, ὥς φησι Ζήνων ἐν τῇ Πολιτείᾳ καὶ Χρύσιππος ἐν τῷ πρώτῳ Περὶ βίων καὶ Ἀπολλοδώρος ἐν τῇ Ἠθικῇ. For further discussion of these passages in relation to the concept of sign see Burnyeat (1982) 228 ff.

396; Cic. *Luc.* 36), it appears originally to have indicated a more restricted concept. Burnyeat's view that the Stoics considered it to be the only legitimate form of a sign<sup>166</sup> has insufficient support from our sources and is incompatible with Chrysippus' procedure in the *On the Soul*, where τεκμήρια are excluded and other 'signs', most notably the argument from spoken language, are adduced to produce a conclusive result.<sup>167</sup> In view of Chrysippus' use and the passages from other sources we have just considered, I submit that τεκμήριον be taken as direct recognition from observed fact.<sup>168</sup>

In regard to the *location* of the corporeal soul Chrysippus did not argue from τεκμήρια in the way we have just explained. The reason must have been that he recognized that Plato's theory was not disproved by the perception of the *passions* in the heart. In fact, in taking this line he may have wished to pre-empt a rejoinder actually put forward by the Platonists in reaction to this standard argument.<sup>169</sup> Galen's imputation concerning Chrysippus' disregard for Plato's doctrine and the Stoic's so-called unproved assumption, then, is wholly off the mark. His strategy is to present Chrysippus' explanation, or articulation, of the common belief (κοινή φορά) based on the perception of passions in the heart as a definitive, or cogent, argument, whereas for the Stoic this is merely his starting-point.<sup>170</sup>

How precisely does Chrysippus construe this explanation? The common view that the regent part, or mind, is located in the heart is based on a συναίσθησις that the *passions* affecting the mind are there (*PHP* III 1.25 = *SVF* II 886). So contrary to what Galen says,<sup>171</sup> there is no reference to perception of the seat of the mind, or ἡγεμονικόν, as such. Further, the συναίσθησις is reinforced by, or actually results from, the evident impression (appearance)<sup>172</sup> of certain physical states corresponding to the passions, in particular anger (III 1.25). And this συναίσθησις of certain passions induces

<sup>166</sup> Burnyeat (1982) 234 f.

<sup>167</sup> Proof may be called the formal articulation of a sign, cf. e.g. Long-Sedley (1987) vol.1, 266.

<sup>168</sup> This agrees with Posidonius' use, see F 29 E.-K., with Kidd *ad loc.*

<sup>169</sup> Epicurus *ap.* Demetrius Laco col. XLVI.1 ff. Puglia, *supra* p. 173, responds to this rejoinder as well.

<sup>170</sup> For the way in which Galen himself treats common opinion as a starting point for the development of scientific accounts see *supra*, pp. 15 ff. esp. 17, 63, 125.

<sup>171</sup> See *supra*, pp.149 ff.

<sup>172</sup> See *supra*, p. 157.

people to include kindred passions, then all the passions and finally ‘reasonings (διαλογισμούς) and whatever resembles these’ (PHP III 2.5 = SVF II 890). Far from entailing an unproved assumption, this explains how the common belief as a general and naturally arising conception comes about, viz. as a series of inferences ultimately based on observed fact (i.e. the physical effects of passions). A parallel line of reasoning is found at PHP III 5.41 ff. (SVF II 899), where, with reference to the beginning of his demonstration, the physical effects are called *evident* (p.208.22 f. ἡ ἐν τοῖς φοβοῖς πάσσις ... ἐκφανής; cf. 29 ἀλγηδόνων-30 μάλιστα). The double inference articulated here reveals three distinct aspects involved in passion: (A) the passion itself; (B) the physiological state corresponding to it; (C) a characteristic feeling we have when aware of this physiological state.<sup>173</sup>

At PHP III 7.2-5 (SVF II 900) Chrysippus explicates the inferential structure of the natural assumption even more clearly: ‘... we have an inner perception (συναισθανόμεθα) that the distress (C) belonging with grief (A) occurs in the chest, because grief (A) is a distress and grief must arise in its [scil. the soul’s] regent part.’<sup>174</sup> An inferential sequence articulating a general notion is also found in the case of the notion that the heart is the centre of verbal communication.<sup>175</sup> It is apposite to recall here that the Stoics regarded inference, or ‘sign’, as characteristic of human rationality (Sextus, *M.* VIII 275 f. = SVF II 223).

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<sup>173</sup> This distinction is pointed out by Frede (1986) 102 f. Note further the fourfold classification of kinds of πάθη advanced by Posidonius according to ps.Plut. *Libid. et aegrit.* ch.6 (F 154 EK), on which see *infra*, p. 250 f.

<sup>174</sup> More on this passage in due course (Ch. 6.1).

<sup>175</sup> See *infra*, p. 203 ff., 244 f., 269 ff.

## CHAPTER THREE

### CHRYSIPPUS AND SCIENCE

The physician Praxagoras of Cos (later 4th c. BCE) has been plausibly identified as one of the main influences on Stoic physical psychology.<sup>1</sup> In *PHP* I Galen takes issue with Praxagoras' view of the arteries, primarily, he says, because Chrysippus referred to it (*PHP* I 7.1 = *SVF* II 897, fourth text). According to Praxagoras, the arteries end in what he called νεῦρα.<sup>2</sup> There is an ambiguity involved here, because Praxagoras, like Aristotle, had not yet arrived at a distinct concept of nerves; for him, the concept of νεῦρα also covered sinews and ligaments.<sup>3</sup> Galen draws a distinction between the structures concerned in his discussion of Aristotle's observation of νεῦρα on the heart (I 9): what Aristotle saw were not nerves but what Herophilus had called 'nerve-like strands' (I 10.1-5).<sup>4</sup> In connection with Praxagoras' position, however, Galen is silent about the difference from later usage, presumably because he has no polemical interest in pointing it out here. On the other hand, he is generous in supplying information on the anatomy of the arteries according to Praxagoras. From this it is clear that they functioned as the means of communication through which voluntary movement is imparted to the body from the heart.<sup>5</sup>

In Chrysippus' lifetime, Praxagoras' doctrine may already have represented a traditional and fairly authoritative paradigm of human physiology, with many centuries of influence still ahead, but also under pressure from the more recent discoveries made in Alexandria. There is an interesting passage from the *On the Passions* (*PHP* IV 6.5-6 = *SVF* III 473) where Chrysippus remarks that the terms τόνος ('tension'), ἄτονος ('with weak tension') and

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<sup>1</sup> See *supra*, pp. 83 ff.

<sup>2</sup> Cf. *Foet. Form.* IV p. 674 K. (*SVF* II 761): Τί ποτ' οὖν ἔδοξε Χρυσίππῳ ... ἀποφύνασθαι περὶ καρδίας, ὥς πρώτη τε φύεται τῶν ζῶου μορίων, ὑπ' αὐτῆς τὰλλα γίγνοιτο, καὶ ὥς τῷ πρώτῳ διαπλασθέντι καὶ φλεβῶν καὶ νέρων ἀναγκαῖον ὑπάρχειν ἀρχὴν;

<sup>3</sup> Cf. De Lacy *ad* I 86.1-3; for Aristotle, cf. *PA* Γ 4.666b14., quoted *supra*, p. 48.

<sup>4</sup> See *supra*, pp. 48 f.

<sup>5</sup> *PHP* I 1.13-7.6; 7.10-20; 7.23-5; 8.1 printed as Praxagoras fr.11 Steckerl. See also fr.75 and Steckerl's discussion on p. 17 f.

εὔτονος ('with good tension') refer to the νευρῶδες ('sinewy') and the νεῦρα ('sinews') in order to explain the common metaphorical use of these terms for psychological phenomena, especially for strength of will and its opposite.<sup>6</sup> His description of the νεῦρα and νευρῶδες coheres with Praxagoras' view (fr. 11 St.).<sup>7</sup> However, the wording in this ethical context is rather general and hence the information concerning Chrysippus' use of Praxagorean physiology to be gained from this passage is much less specific than the evidence forthcoming from *PHP* I-II.

In the following pages, I shall review the relevant fragments and testimonia in *PHP* I-II, and, insofar as possible, reconstruct the overall picture that emerges from them. As a result, Chrysippus' use of current scientific insights and, in particular, his attitude towards the discovery of the nervous system will be clarified. Here certain epistemological doctrines which Chrysippus brought to bear on the general relation of philosophy to science are relevant, as becomes clear from a fragment from his *Physical Questions* (*SVF* II 763; see below).

The following texts should be considered:

(1) *PHP* III 1.15 (*SVF* II 885): Chrysippus' remark on the disagreement among philosophers and physicians concerning the seat of the regent part<sup>8</sup> certainly implies that, in his view, no unequivocal and decisive scientific results are available. The scientific views he has in mind pertain to anatomy, especially to the structure and function of the νεῦρα. This passage, then, casts light on the scope of our next passage:

(2) *PHP* I 7.1 (*SVF* II 897, fourth text), which we have already referred to above. Chrysippus is said merely to have *mentioned* (ἐμνημόνευσε) Praxagoras and to have *opposed* him to the proponents of the head as the seat of the regent part. This strongly indicates that he did not draw on Praxagoras extensively and that his main point may have been that the issue was still undecided insofar as

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<sup>6</sup> On the metaphorical use of τόνος and νεῦρον see also Vegetti (1990), who however does not take account of Praxagoras' influence on Stoic conceptions; cf. Mansfeld (1992a).

<sup>7</sup> Note esp. (1) the idea of τόνος involved here; (2) Chrysippus' reference to ἀνθέξει ('holding fast'), which recalls Praxagoras' emphasis on the evidence of the hands, cf. fr. 11 St. Yet the fact that this conception was similar to those of other authorities should warn us not to be too quick to speak here in terms of specifically Praxagorean influence on Chrysippus; cf. e.g. Aristotle's view.

<sup>8</sup> See *supra*, pp. 148, 155; cf. 144.



scientific medical discussion was concerned. Texts (1) and (2) thus confirm each other. With them agrees

(3) *PHP* II 5.69-70 (*SVF* II 898). I have quoted this passage in Part One, where I discussed it from Galen's perspective.<sup>9</sup> As Solmsen rightly pointed out,<sup>10</sup> in this verbatim, though, fragment Chrysippus reacts to the discovery of the nerves, arguing that what his opponents say about the structure and workings of the nervous system does not constitute cogent proof that the dominating part of the soul is located in the head; that is, the head may be the source of the nervous system, while the stimuli come from the heart as the seat of the intellect.<sup>11</sup>

(4) *PHP* I 6.13 (*SVF* II 897, third text): Galen reports that Chrysippus confessed uncertainty as to the question of the source of the nerves or any other related (scientific) problem. In this connection Chrysippus is said to have referred explicitly to his lack of expertise in anatomy. We should note the peculiar expression Chrysippus uses here, saying that 'his *heart* does not vouchsafe him the insight (γνώσιν) in these anatomical matters.' We need not doubt that this turn of phrase preserves Chrysippus' own wording. Although it may seem odd at first glance, it becomes perfectly understandable if we take Chrysippus to indicate that the heart could, and did, furnish testimony of a different kind that helped to solve the problem under discussion. In fact, Chrysippus is here hinting at a possibility he had put into effect earlier in his demonstration, when, just after his introduction, he turned to self-perception as indicating the heart as the seat of mental phenomena, especially of the passions (*PHP* III 1.22 ff. = *SVF* II 886, 887), which perception resulted in particular from our feeling the heart's physical motions (see Ch 2.5). It can thus be said that it is *the heart* that provides knowledge. We may compare:

(5) Plutarch, *SR* ch.29, 1047C (*SVF* II 763), offers this, partly verbatim, fragment:<sup>12</sup>

<sup>9</sup> See *supra*, pp. 51 ff.

<sup>10</sup> Solmsen (1961a) 192, 195

<sup>11</sup> See also the discussion of this passage in Repici (1993) 267 f., who rightly rejects Galen's claim that Chrysippus contradicts Zeno's speech argument (quoted II 5.8 = *SVF* I 148; see *supra*, p. 42). Cf. Gal. *CAM* 3, I p.234 K.: 'But whether another particular part sends the powers to it [scil. the brain], just as it itself sends them to the nerves, is as yet unclear. For such an inquiry pertains to the regent part of the soul.'

<sup>12</sup> Probably this treatise was concerned with the general, disputed problems of natural philosophy. See the other preserved fragments from it: *SVF* II

In the *Physical Questions* he has exhorted us to remain silent on matters requiring scientific experience and research if we have not something better and clearer to say, '... in order,' he says, 'not to make surmises either like Plato's that the liquid nourishment goes to the lungs and the dry to the belly or other errors that there have been like this.' (Translation Cherniss', modified).<sup>13</sup>

Although the verbatim quotation starts not earlier than ἵνα ('in order ...'), the preceding introductory sentence may largely preserve Chrysippus' wording, in accordance with Plutarch's habit of paraphrasing or summarizing the beginning of an original sentence or passage before directly quoting what follows.

The protracted controversy on the path followed by liquid nutriment was stimulated by Plato's remarks at *Ti.* 70c-d and 90a in particular.<sup>14</sup> Plato's view had been refuted by Aristotle,<sup>15</sup> but Chrysippus may be thinking of his contemporary, Erasistratus of Ceos (*flor.* 258/7 BCE), as a more recent authority,<sup>16</sup> who is on record as having criticized Plato on this point.<sup>17</sup>

Several points made by Chrysippus bear directly on our present discussion. The formula περὶ τῶν ἐμπειρίας καὶ ἱστορίας δεομένων ('on matters requiring scientific experience and research') does not seem to indicate *all* scientific matters in general, as those on which

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128, III 68. Cf. the Chrysippean titles λογικαὶ θέσεις and θέσεις ἠθικαὶ in the catalogue in D.L. VII 189, 199 (= SVF II p.4, l.38; p.8, l.31), found at the beginning of the logical and ethical sections respectively. Cf. SVF I 409.

<sup>13</sup> Ἐν δὲ ταῖς Φυσικαῖς Θέσεσι περὶ τῶν ἐμπειρίας καὶ ἱστορίας δεομένων διακελευσάμενος τὴν ἡσυχίαν ἔχειν, ἂν μὴ τι κρεῖττον καὶ ἐναργέστερον ἔχωμεν λέγειν, ἵνα φησὶ μήτε Πλάτωνι παραπλησίως ὑπονοήσομεν τὴν μὲν ὑγρὰν τροφήν εἰς τὸν πλεῦμονα φέρεσθαι τὴν δὲ ξηρὰν εἰς τὴν κοιλίαν, μήθ' ἕτερα παραπλήσια γεγονότα τούτοις διαπτώματα

<sup>14</sup> On this debate see in particular L. Repici, 'L'epiglottide nell' antichità tra medicina e filosofia', *Hist. Phil. Life Sciences* 12 (1990) 67-104, esp. 78 f. on Plut., SR 1047C.

<sup>15</sup> PA Γ 3.664a37-b36. Cf. Hp. *Morb.* ch. 56 (VII, pp.604-8 L.).

<sup>16</sup> Chrysippus probably knew Erasistratus' works; in particular his aetiological theory may have been influenced by Erasistratus' *Περὶ αἰτιῶν*; see Galen's *De causis procatarcticis*. pp.174, 96 ff. esp. 102 Bardong, with Pohlenz (1980) 61. Pohlenz however is less convincing in tracing Chrysippus' views on the heart, the arterial system and the πνεῦμα back to Erasistratus; cf. Pohlenz (1980) 51. Here the influence of Praxagoras was predominant, see also *supra*, p. 86 n. 82.

<sup>17</sup> See Plut. *Quaest. conviv.* VII 698B; Gal. *Nat. fac.* II 11-2, with Wellmann's remarks at RE VI col. 338. Plutarch, Galen and others propounded Plato's view; see Plut. SR 1047 C-D and the discussion at *Quaest. conviv.* 698A-700B; Gal. *PHP* VIII 9.3-25; *In Plat. Tim. Comm. Fragm.* Schroeder, p.17.31 ff. For further references to both primary and secondary literature on this question, see ed. Cherniss, p. 525, note d. and De Lacy, *ad* 532.31-2; *ad* PHP 536.31-2.

the philosopher of nature cannot take a position based on his own research and expertise and hence should not pronounce in principle. Rather it pertains only to those scientific problems that have not yet been researched in such a way as to have yielded clear, unequivocal results, which may also be judged and used by non-experts. Now the type of inadequate notion involved here is illustrated by Plato's notorious view that liquid goes to the lungs.<sup>18</sup> As it was, this view was superseded by later research, notably that of Erasistratus.<sup>19</sup> Thus Chrysippus feels able to speak of Plato's *errors*. Further, we should note that the conditional clause 'if we have not something better and clearer to say' appears to hint at a source of knowledge distinct from scientific experience.

Of central importance here is the idea of clarity as characteristic of cognitive presentations. Science may provide cognitive presentations or it may not, but only the former are to be accepted. The mental state belonging to the reverse situation is here exemplified by Plato and indicated by the verb ὑπονοήσομεν ('surmise'). This expresses a concept explained elsewhere as implying assent to non-cognitive presentations,<sup>20</sup> i.e. those either unclear but true, or patently false.<sup>21</sup> The sage is characterized by absence of ὑπόνοια.<sup>22</sup> For the correct reaction to non-cognitive presentations is to *suspend judgement* (Plut. SR 1056F = SVF II 993).<sup>23</sup> Accordingly, Chrysippus stresses the need to remain silent in such cases. We may recall his reference to the prevalent disagreement among the experts (PHP III 1.12-4 = SVF II 885), which is attributed to lack of *clear* sense-perception; that is to say, no cognitive presentation has (as yet)

<sup>18</sup> Perhaps Plato relied on Philistion and Dexippus on this point: see M. Wellmann, *Die Fragmente der sikelischen Aerzte Akron, Philistion und des Diokles von Karystos* (Berlin 1901) 98-102; 112-3 (Plut. SR 1047C = Philistion fr.7 Wellmann); cf. also Taylor *ad Tim.* 70c-d. The view that the lungs were the receptacle for drink had a long tradition, see Onians (1951) 36 f.

<sup>19</sup> See *supra*, n. 16

<sup>20</sup> See Stob. *Ecl.* II p.111.18 ff. W. (SVF III 548, p.147.20 f. ) we read: οὐδ' ὑπονοεῖν φασὶ τὸν σοφόν· καὶ γὰρ τὴν ὑπόνοιαν ἀκαταλήπτω εἶναι τῷ γένει συγκατάθεσιν. Cf. Cherniss *ad loc.* (p.524, note c), who rightly contrasts the term with ἐναργέστερον. See also SVF II 131 (p.41.16-7) where, in the mutilated papyrus text, ὑπόν[ο]ια is conjoined with ἄγ[ν]οι[α], ἀ[πισ]τία and 'similar things' as φαῦλα. The Sage is said to be devoid of the epistemic states mentioned; cf. also the expression τὴν ἰδιωτικὴν ὑπόνοιαν at Sextus, M. IX 63, reporting a Stoic argument.

<sup>21</sup> SVF II 70; SVF II 993 (Plut. SR 1056F), on which see Görler (1983) 72 f.

<sup>22</sup> SVF III 548 (p.146, 29 ff.); cf. Görler (1983) 88 f. On ὑπόνοια in the *On the Soul*, see further *infra*, pp. 215 f.

<sup>23</sup> Cf. *supra*, p. 185.

resulted from common or scientific perception.<sup>24</sup> Chrysippus does not choose to remain silent on the question of the seat of the regent part, having, it appears, 'something better and clearer' to say. This, then, is not based on anatomical or physiological insights concerning the location of the centre of consciousness.

So *SVF* II 763 is consistent with the stance taken by Chrysippus at the beginning of his demonstration (see above p.143); it helps to explain why Chrysippus refrains from immediately espousing one among the competing scientific views put forward in the controversy on the centre of the nervous system. It should be kept in mind that the circumstances under which the nervous system was discovered and the results and implications of this discovery were divulged, do not appear to have been anything like we would be inclined to suppose.<sup>25</sup> Throughout antiquity anatomical inquiry was conducted at very few places—Alexandria being virtually the only one—and moreover appears to have fallen into disuse shortly after Herophilus and Erasistratus.<sup>26</sup> There is no evidence that the findings of these two scientists were put to the test in Athens—nor are they likely to have been.

(6) *PHP* II 4.40 contains a brief reference to the doctrine of the transmission of speech from the heart via the lungs to the throat. The mechanism is that of the πνεῦμα in each of these organs being imprinted and stamped<sup>27</sup> and imparting its shape to the πνεῦμα in the next organ. This conception, Galen says, is refuted by the experiment whereby the nerves are severed (*ibid.*, p.126.2 ff.). The doctrine referred to clearly is Stoic, so for the purpose of refutation Von Arnim printed the passage as *SVF* II 893, i.e. among the fragments of the *On the Soul*. Chrysippus may have presented it in one way or another, but there is no *exact* parallel for the doctrine in question in the verbatim fragments, and we should not make too much of this single sentence.

<sup>24</sup> See II 7.6 (c III 15), quoted *supra*, p. 148 (cf. 155) with Ch. 2.5.

<sup>25</sup> Solmsen's judgement referred to *supra*, p. 139 n. 15 is not correct.

<sup>26</sup> See e.g. L. Edelstein, 'The development of Greek anatomy', *Bulletin of the Institute of the History of Medicine*, 3 (1935) 235-248; Von Staden (1989) 445 f. Galen remarks on the difficulties involved in getting hold of human corpses to dissect and did most of his work on apes; cf. *AA* II, pp. 220 ff. K.

<sup>27</sup> *PHP* II 4.40, p. 124.34 τυπουμένου; 126.2 συντυπώντος; cf. Diog. Bab. *ap. Gal.*, *PHP* II 5.12, p. 130.16: ἐκτετυπωμένον said of language being imprinted by the notions of the mind (the πνεῦμα is left unmentioned). We may compare τύψεις as found in the Stoic account of presentation (*SVF* II 55, 56; cf. Plato, *Th.* 191B).

Yet we may extract further information about this doctrine and its provenance from other fragments. Although in his argument from spoken language (*PHP* II 5.15-20 = *SVF* II 894) Chrysippus does not refer to the πνεῦμα or to the transmission of sound, he does say that spoken language is sent *from the heart through the windpipe* (τραχεῖαν ἀρτερίαν) *and throat* (φάρυγγος) (p.130.32 f.). This idea is absent from Zeno's syllogism (II 5.8, p.130.2 ff.);<sup>28</sup> apparently, it does not represent a popular conception but anatomical knowledge. We may also compare III 1.11 (esp. p.170.11 f. and 15 f.), from which it follows that Chrysippus regarded 'voice' (φωνή) as the part of the pneumatic soul which extends from the heart through the windpipe to the throat.

The view that the arterial system was continuous with the windpipe and the throat was fundamental to another Stoic view, namely that the psychic πνεῦμα in the heart was sustained and nourished through the inhalation of breath (πνεῦμα), which was derived from Praxagoras' system as well.<sup>29</sup> There are no indications that Chrysippus and the Stoics regarded this scientific doctrine as invested with any degree of uncertainty or provisionality. The above passages strongly suggest that Chrysippus availed himself of this doctrine to reinforce his argument from spoken language, and this leads Galen to state explicitly that it is untenable in the light of the experimental evidence.

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<sup>28</sup> Diogenes of Babylon's version is closer to Zeno in this respect; see esp. the cautious wording of his conclusion (*PHP* II 5.13, p. 130.18 f.).

<sup>29</sup> See *supra*, pp. 80 ff. esp. 83 f.; cf. *infra*, p. 241.

## CHAPTER FOUR

### LANGUAGE AND RELATED PHENOMENA

#### 4.1. *Introduction*

One of the types of argument employed by Chrysippus is concerned with words and expressions taken from common parlance. This distinct group of 'etymological' arguments will be discussed in the following pages. But first a terminological point is in order. Among Chrysippus' arguments, his derivation of 'καρδία' ('heart') from 'κυρεία' ('authority') and 'κράτησις' ('power') (III 5.28 = *SVF* II 896) is the only one that is 'etymological' in our sense of the word; but it is closely connected, both structurally<sup>1</sup> and methodologically, with references to certain bodily motions concomitant with the utterance of the word ἐγώ and other expressions (II 2.10-11, III 5.8, 11, 15 = *SVF* II 895, 892). To this group of arguments also belong certain metaphorical expressions which Chrysippus takes to express literal, or physical, truth (III 5.2-5, 37, 7.21-22, 3.4 = *SVF* II 891, 899, 901, 902). He appears to have called all such arguments 'etymological'.<sup>2</sup> We are told that he also advanced the arguments concerned with ἐγώ and the gesture of pointing to the chest in his *Etymological Inquiries*.<sup>3</sup> Galen, for his part, seems to entertain a more modern concept, confining the term to a more narrowly defined linguistic sphere (cf. *PHP* III 5.22). In the following pages I shall use 'etymology' and 'etymological' in the broader Chrysippean sense.

Galen assigns all Chrysippus' etymological arguments, along with those referring to common notions and poetry, to the rhetorical category.<sup>4</sup> This classification roughly corresponds to the way in which the Stoic himself orders his arguments, discussing common parlance in close conjunction with common experience—a

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<sup>1</sup> See *infra*, p. 201.

<sup>2</sup> See also the Stoic definitions at Cic. *Top.* 8.35, *Ac. Post.* I 32 ('Verborum etiam explicatio probabatur, id est, qua de causa quaeque essent nominata, quam ἐτυμολογία appellabant') and the definitions in the *Schol. in Dion. Thr.* quoted *infra*, p. 200.

<sup>3</sup> *PHP* III 5.25; cf. II 2.10-1 (*SVF* II 895), on which see *infra*, Ch. 4.3.

<sup>4</sup> See *PHP* II 4.4. quoted *supra*, p. 14; pp. 16 f.

procedure he announces at the beginning of his demonstration, where he describes his starting point as 'the common belief and *what is said in accordance with it*' (PHP III 1.22 = SVF II 886).<sup>5</sup>

Chrysippus' *On the Soul* bears out the importance attached by the Stoics to etymology as a tool of philosophical inquiry.<sup>6</sup> As to Chrysippus, it is instructive to compare the etymological derivations in the fragments of his *On Fate* in particular.<sup>7</sup> Given its distinctive role, Stoic etymology has received considerable attention not only from students of linguistics or allegoresis,<sup>8</sup> but also from historians interested in its wider philosophical implications, i.e. its semantic, epistemological and ontological aspects.<sup>9</sup> However, the Stoic *theory*

<sup>5</sup> Cf. PHP III 5.11 (SVF II 892, second quotation).

<sup>6</sup> Etymology was by no means an exclusively Stoic interest, yet it was considered to be characteristic: see esp. Cic. ND III 62 f. (SVF II 1069) and *De off.* I 23. Remarkably enough, etymology is absent from the programme of dialectical studies outlined at D.L. VII 41-4, and an inferior status seems to be assigned to historical linguistics at D.L. VII 83 (SVF II 130), which states that the wise man has nothing to say about it. These two passages are adduced by Long-Sedley (1987), vol.1, 195 and vol.2, 188, to play down the importance of etymology to the early Stoics: their position, they argue, resembles the conclusion of Plato's *Cratylus* that language is too inaccurate to provide a route to knowledge and is inferior to the dialectical study of the essences of *things*. However, the reference at VII 83 to a conventional origin of language conflicts with the rest of our evidence (see next n. and below in text) and casts doubt on the reliability of this passage as testimony for the early Stoic view. Long's and Sedley's view that Stoics merely made occasional forays into etymology is unconvincing in the light of our documented evidence, which strongly indicates an extensive use of etymological derivations. Cic. *Ac.* I 32 f. suggests that the Stoics took Plato to have espoused etymology (in line with a reading of the *Cratylus* that was not uncommon in antiquity); see further *infra*, n.53. Chrysippus' concern with etymology can be illustrated by the titles of two of his treatises: *Περὶ τῶν ἐτυμολογικῶν πρὸς Διοκλέα* and *Ἐτυμολογικῶν πρὸς Διοκλέα* in no less than six and four books respectively (D.L. VII 200); cf. Gal. PHP III 5.25 (ἐν τοῖς Ἐτυμολογικοῖς).

For further testimonies see SVF II 146, 151 ff. II 913 ff.; 1084 ff. cf. also SVF vol. IV p.199 s.v. *Etymologicum*. More evidence is assembled under FDS 639-49 (theory), 650-80 ('etymologies'), providing more passages from Varro's *De lingua latina* and adding portions of St. Augustine's *De dialectica* ch.6., a treatise altogether neglected by Von Arnim. Dion. Hal. *Comp. verb.* ch.16, and Ammonius, *In Arist. De int.* pp. 34.20-39.11 Wallies should also be taken into account.

<sup>7</sup> See the quotations and comments by the Epicurean polemicist Diogenianus *ap.* Eusebius PE VI 8 p.263 C ff. = Diog. fr. II Gercke (Gercke [1885]: 749 ff.), printed in part as SVF II 914; cf. SVF II 913.

<sup>8</sup> See Barwick (1957) 58 ff. cf. 29 ff.; Dahlmann (1964) 1 ff. Le Boulluec (1975) 306 ff.

<sup>9</sup> See Lloyd (1971) 58 ff. Frede (1978) 61, 68 ff. Pohlenz (1984) 40 ff. (1980) 23 ff. Long (1986) 132 ff. Le Boulluec (1975) 306 ff. See also H. Dahlmann, *De philosophorum Graecorum sententiis ad loquellae originem pertinentibus capita duo* (diss.

of etymology is documented rather poorly, and the fragments of the *On the Soul* are no exception: no explicit statements are inserted to explain or justify the use of etymology. Nevertheless we should try to determine their status and function in the context of Chrysippus' argument. In doing so we may also achieve a fuller understanding of the theoretical assumptions underlying his use of etymology. To this end I shall list and assess a number of epistemologically significant terms to be found in the etymological fragments, paying due attention to hints provided by the structure of Chrysippus' discussion as a whole. I start with a brief overview of the evidence from other sources.

The early Stoics held that words are naturally fitted to things.<sup>10</sup> In a direct sense, this applies only to the so-called 'primary sounds' or 'words' (πρωταὶ φωναί), which 'imitate nature', that is, they express the properties of the thing they name.<sup>11</sup> How this was understood is partly indicated by the fact that many extant examples of 'primary sounds' are provided by *onomatopoeia* or *synaesthesia*; but, as these phenomena could obviously not account for the whole of language, the Stoics appear to have sought ways to extend this line of explanation.<sup>12</sup> Here it suffices to stress that all other words are genetically and logically dependent on the primary ones.

The Stoics subscribed to the widespread idea of a primordial stage in which wise men had applied names to the things in accordance with their nature.<sup>13</sup> This idea may also be reflected in Stoic texts saying that, in the beginning, all men stood nearer to

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Leipzig 1928), 58 ff., who also adverts to the dialectical use of etymology.

<sup>10</sup> See further *infra*, p. 209.

<sup>11</sup> See esp. Barwick (1957) 29; Lloyd (1971) 61 ff.; J. Mansfeld, 'Zeno of Citium: Critical Observations on a Recent Study', *Mnemosyne* 31 (1978) 143 ff. We do not know of any definite list of 'primary words' and perhaps none was ever drawn up. The word ἐγώ was considered one too: see *infra*, p. 208. On their mimetic nature see Origenes, *Contra Celsum* I 24 = SVF II 146; cf. Dion. Hal., *Comp. verb.* ch.16 (not in SVF), which no doubt reflects Stoics ideas. Le Boulluec (1975) 307 aptly refers to Cleanthes' *Hymn to Zeus*, where language is referred to as 'the expression which is sound' (ἤχου μίμημα, SVF I 537, p.121,37).

<sup>12</sup> Cf. Lloyd (1971) 63 ff.

<sup>13</sup> Diogenianus *ap. Eus.*, *PE* VI 8, p. 260 Mras = Diogen. fr. II Gercke (1885) 750, l.45 f.] (not in SVF) which is based on what Chrysippus said in his *On Fate* (see *supra*, in text), or at any rate expresses the standard Stoic view; cf. Philo, *Leg. Alleg.* II 14 f. with Dillon (1977) 181; and Philo, *De opif. mundi* 148; *Quaest. in Genes.* 1.20. Ammonius, *In Arist. De int.* p.35.16 ff. Wallies. Cf. Diog. Oen. fr.10 col. III l.9 ff. Chilton, where probably the Stoics are meant. On the wise namegiver see also Plato, *Crat.* 388e ff.



God and enjoyed a clearer grasp of reality.<sup>14</sup> But Chrysippus took a more nuanced view of the relation of words to things than his predecessors had done. He placed much emphasis on anomaly and ambiguity as typical of language as spoken in his day.<sup>15</sup> These linguistic phenomena imply a process whereby common language (and rationality) had become more and more confused. But it remains possible to re-establish clear and correct verbal, and hence conceptual, connections by tracing the way back to the 'primary sounds', i.e. by reversing the process whereby language was formed.<sup>16</sup> Consider for example Chrysippus' explanation, already cited above, of καρδία by reference to both κράτῃσις and κυρεία (*PHP* III 5.27-8 = *SVF* II 896).<sup>17</sup> The name καρδία, then, is derived from two names for other things, power and authority because these are in a way known (or have been known) to be related to the heart in view of this being the seat of the dominating part of the soul. The name καρδία was then formed through a process of conflation, entailing the transposition of some letters and the elimination of others.<sup>18</sup> The etymology of the word καρδία thus reveals an important fact about the entity in question.

The Stoics were eager to find their doctrines anticipated in language. Employing such unspecific principles as 'similarity', 'vicinity' and 'contrariety' for their etymological derivations, they not surprisingly arrived at many arbitrary results liable to be attacked and ridiculed by those contemporaries who denied any heuristic value to etymology in accordance with e.g. Aristotle's

<sup>14</sup> Cf. Seneca, *Ep.* 90.44 (on which cf. also *infra*, p. 226 n. 29) and Most (1989) 2020 ff. on certain passages from Cornutus' *Epidrome*; Most, however, is sceptical on their value as evidence for the early Stoic view. Less compunction is shown by Pohlenz (1984) 42, 97. In addition cf. Varro, *L* 5.9 and the passages from Philo referred to in the previous note. Frede (1978) 69 with n.18 suggests that this view about early man would seem to meet the Epicurean objection as to how the mysterious bestower of names could have persuaded his fellow men to accept his names (cf. Diog. Oen. fr.10 col. IV Chilton). On Stoic views concerning the primordial state of man, see further *infra*, pp. 225 f.

<sup>15</sup> For Chrysippus' *On Anomaly*, see D.L. VII 192 f.; *SVF* II 151, 152. with Frede (1978) 72. For treatises dealing with ambiguity, see D.L. VII 193.

<sup>16</sup> Cf. Augustine, *De dialectica* ch.6 (pp.92-4 Jackson-Pinborg) = *FDS* 644: Stoici autumant ... nullum esse verbum, cuius non certa explicari origo possit. ... quaerendum donec perveniatur eo, ut res cum sono verbi aliqua similitudine concinnat.

<sup>17</sup> On this passage, cf. Dahlmann (1964) 9 f.

<sup>18</sup> Cf. *SVF* II 154, I 547. On the transposition, addition and substraction of letters (i.e. sound units), cf. also Plato, *Crat.* 393d, 394b; Varro, *L* V 6.

statement of the conventional nature of 'names' (*De int.* 2.16a19, 16a26 ff.). This position is also adopted by Galen, who refers to his (lost) *On the Correctness of Names* for a full demonstration of his view that etymology is inappropriate to scientific discourse (*PHP* II 2.6 ff.). But, in typical way, he also seeks to expose inconsistencies and other flaws vitiating Chrysippus' etymological arguments.<sup>19</sup>

The close connection the Stoics construed between rationality (i.e. conceptions) and (spoken) language is well known and need not be discussed in detail. It entails that clarification of linguistic relations coincides with conceptual clarification.<sup>20</sup> Conceptions, when naturally embedded in us, are 'criteria of truth', and so etymology is described as a clarification of what is *true*. Apart from the etymology of 'etymology',<sup>21</sup> we may point here to the Stoic definition offered by a scholion on Dionysius Thrax: 'Etymology is the explanation of words and expressions through which the true is clarified.'<sup>22</sup> And a further definition reads: 'Etymology is a concise and true explanation of the subject under investigation ...'<sup>23</sup>

<sup>19</sup> On Galen's attitude towards 'etymological' arguments see also *supra*, pp. 16 f.

<sup>20</sup> On etymology as clarification, cf. also Dahlmann (1964) 7 f.

<sup>21</sup> Cf. Cic., *Top.* 8.35 = *FDS* 649.

<sup>22</sup> p.14.23 f. Hilgard (*Grammatici Graeci*, pars 1, vol. III, Leipzig 1901): 'Ετυμολογία ἐστὶν ἡ ἀνάπτυξις τῶν λέξεων, δι' ἧς τὸ ἀληθές σαφηνίζεται. Lacking from *SVF*, but cf. Barwick (1957) 60 n.4, and Le Boulluec (1975) 309. See also *ibid.* II.25 ff. and pp.303.6 ff. 169.20 ff. 303.18 f. 309.12 ff. It may be significant that τὸ ἀληθές not ἡ ἀλήθεια is spoken of. On the difference involved see Sextus, *PH* 80-3 and *M.* VII 38-45 (*SVF* II 132), discussed by Long (1971b) 98 ff. and *id.* 'The Stoic Distinction between Truth (ἡ ἀλήθεια) and the True (τὸ ἀληθές), in Brunschwig (1978), 297 ff. 'The truth' refers to corporeal being, indicating either 'cosmic truth' or its reflection by the soul as knowledge; in this latter sense it entails a coherent and self-consistent structure of conceptions. 'The true' indicates a particular proposition (ἄξιωμα), i.e. an incorporeal λεκτόν. It may not be too fanciful to suppose that its use here was originally meant to imply that etymological derivation effects the clarification of non-complex conceptions to be spelled out in single propositions (definitions), without entailing the complexity and coherence characteristic of 'the truth' (see esp. Sextus, *M.* VII 40 f.). If correct, this interpretation confirms the initial, heuristic role of etymology whose results require further systematic elaboration (cf. the role of definition, on which see *infra*, n. 26). From an epistemological point of view this status moreover fits in with the fact that Chrysippus' etymological arguments are provided by *common* expressions and, quite emphatically, the common notions from which they spring. These notions may, to whatever degree of clarity, reflect truth, but they are not yet firm and systematic knowledge—which quality it is the task of philosophical method to bestow on them.

<sup>23</sup> *Schol. in Dion. Thr.* p.454.21 ff. Hilgard: ἐτυμολογία σύντομος καὶ ἀληθὴς τοῦ ζητήματος ἀπόδοσις ...

The procedure in question was also termed 'articulation'.<sup>24</sup> Accordingly, the first ethical section of Diogenes Laertius' catalogue of Chrysippus' works contains two etymological monographs<sup>25</sup> under the heading 'On the *Articulation* of Ethical Concepts' (VII 200).<sup>26</sup> The methodological use here indicated helps to explain Chrysippus' interest in the mental state connected with the use of certain words and expressions, i.e. the common 'opinion' contained in the linguistic material.<sup>27</sup> To etymological explanation falls the task of lifting the conceptions involved to the level of full consciousness and, at least to some extent, of clarifying them. Thus even the etymology of καρδία, which explicates a rather opaque linguistic relation, was followed (directly, if we may believe Galen) by the sentence: 'Our impulse is in that part, we assent with this [part], and all the organs of sensation extend to this [part]' (III 5.28, 31 = SVF II 896). If so, given the fact that the heart is, or once was, felt to be the seat of the regent part, this sentence must be taken to state, clearly and articulately, the conception of the ἡγεμονικόν which has caused the heart's name to be formed from the words for *power* and *authority*.

<sup>24</sup> See also *supra*, p. 178. The term διάρθρωσις, it seems, first had a biological application; later it was transferred to speech and then to mental processes, see *LSJ s.v.* For its application to concepts in Stoicism see e.g. Hierocles, *Ethic. Stoich.* col. VII 53, quoted *supra*, p. 178; Epict. *Diss.* II 17.13; I 17.1, 3; II 17.7; IV 7.38; *Ench.* 52, p.37 Schenkl. Plut. *CN* 1059C uses the word to refer to Chrysippus' clarification of the nature of 'concepts' and 'preconceptions' as distinct mental states. This may reflect Chrysippus' own use of the term to designate the procedure he *applied* to concepts and preconceptions. On articulation see also J. Pinborg, 'Das Sprachdenken der Stoa und Augustins Dialektik', *Classica & Mediaevalia* 23 (1962) 153 ff.; Pohlenz (1980) 33; Goldschmidt (1989) 161 f.

<sup>25</sup> See *supra*, n. 6.

<sup>26</sup> On this section of the catalogue see also Brunschwig (1991) 90. The numerous titles concerned with definitions found in this section suggests that Chrysippus put conceptual clarification through etymology on a par with that effected through definition. This must concern in particular the definition of conceptions entertained by people in general, i.e. the 'outline account' (ὕπογραφή), which is also mentioned in one of the titles (D.L. VII 199). This type of definition thus provided the material for further development and clarification. The technical or philosophical account is associated with definition as the 'account of what is proper' (ἡ τοῦ ἰδίου ἀπόδοσις), see D.L. VII 41-2; ps.Gal. *Def. Med.* XIX, p. 348.17 ff. K. (SVF II 227); August. *Civ. D.* 8.7. (SVF II 106); Gal. *De diff. puls.* IV 2, VIII, p. 708 K. (SVF II 229), which shows Stoic influence, see *supra*, p. 63 with text thereto. See the discussion by Rieth (1933) 36 ff. ff. 176 ff.; Goldschmidt (1989) 161 f.; Long-Sedley (1987) vol.1, 193 f. The classifications found in the catalogue may well reflect Chrysippus' original position, cf. Mansfeld (1986) 357 f. 363 f.

<sup>27</sup> Cf. also *infra*, n. 77.

As we have noticed, Chrysippus expressly connects his linguistic arguments to the common belief (κοινὴ φορά; see above, Ch. 2.3), which he took as his argument's *starting-point*. Moreover, the fact that, in the above definition, etymology is called a *concise* account suggests the need for further development and corroboration. These facts should put us on the right path towards an understanding of Chrysippus' arguments from linguistic phenomena. A more detailed appreciation of their methodological role can, of course, result only from examining the individual fragments themselves.

What needs articulation is *common* rationality, so that etymology is applied to *common* language.<sup>28</sup> The role of Stoic etymology mirrors the ambivalence that marks the Stoic evaluation of common human rationality. While stressing its imperfect nature and being reputed for the strong language in which they denounced the common run of mankind (the 'fools'), they availed themselves of its testimony as a starting-point for their own arguments, and so in a way accommodated it in their own system. In the background of the belief in the potentialities of common rationality stood the dogma of divine providence.<sup>29</sup>

The polemicists exploited the ambivalence involved here. Diogenianus fabricates a self-contradiction between Chrysippus' view that common language reflects *true* opinion and his depiction, elsewhere, of the common run of mankind as mad (Diogen. *ap. Eus. PE* VI 8, p.324 Mras = fr. II Gercke, p.750.21 ff.). And Galen plays with the same polemical motif at *PHP* III 4.33 ff., attacking Chrysippus' appeal to what he calls 'non-experts, ignorants, madmen, people who disagree on every occasion with each other and with themselves in both words and actions.' Chrysippus himself, by contrast, is sarcastically referred to as wise, sane, knowledgeable of logical consistency. All these qualifications are of course meant to recall the language the Stoics actually used. Plainly, the alleged inconsistency exposed by Galen is just another version of that constructed by Diogenianus. This parallel seems due to the fact that both authors are inspired by, or even depend upon, one

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<sup>28</sup> Cf. Varro, *De lingua latina* V 9, who assigns to philosophy the task of applying etymological analysis to terms used in the *consuetudo communis* as distinct from poetical language, which is studied by the grammarians. Note, however, that no such distinction is apparent from the text of the *On the Soul*. See also *infra*, p. 217.

<sup>29</sup> See also *supra*, p. 162.

and the same line of polemical tradition, probably the anti-Stoic writings of the Sceptical Academy.

#### 4.2. *The Heart as the Centre of Verbal Communication*

At *PHP* III 5.3, in a rather long fragment (5.2-5 = *SVF* II 891), Chrysippus introduces his treatment of linguistic expressions as follows:

... the greater number of them (οἱ πολλοὶ τούτων),<sup>30</sup> flattered by common usage (σαίνόμενοι ... φήμη)<sup>31</sup> and adhering to the common belief mentioned above, use many such<sup>32</sup> expressions in accordance with the truth (κατὰ τὴν ἀλήθειαν).

Thus linguistic phenomena of language are accorded a certain truth-value, which agrees with the reference to 'the true' in the definitions of etymology referred to above.<sup>33</sup> The sentence that precedes the one we have just quoted (i.e. the first sentence of this fragment, p.200.21 τῆς – 24 παραπλήσια; cf. p.176.14 ff.) concludes the first section of Chrysippus' demonstration, dealing with the passions, notably anger, as commonly perceived in the region of the heart.<sup>34</sup> In line with his announcement at *PHP* III 1.22 f., he now turns to language for further evidence that the common belief

<sup>30</sup> I.e. of people in general as mentioned in the text preceding the fragment, no doubt in connection with the passions they feel arising in the heart; this perception too was presented as common (see *supra*, pp. 160 ff.). Alternatively, the pronoun τούτων may be taken together with πολλά, which directly follows. De Lacy translates: 'The multitude of men [...] truthfully apply such terms to many of these (things).' On this interpretation, τούτων also has a backward reference but pertains to the passions; in that case the expression 'anger rises' appears neatly to provide the first instance of an expression applied truthfully to one of 'these things'. However, Chrysippus is interested not in expressions that specifically refer to the passions but rather in expressions that connect the heart with mental phenomena in general. Note also that just before the sentence quoted (p.200.24 f.) Chrysippus has put the διαλογισμούς on a par with the passions in locating all of them in the heart (according to what he claims to be the 'common tendency').

<sup>31</sup> The mode of expression here is odd. Fillion-Lahille (1984) 58 thinks φήμη means verse but this interpretation is based on her mistaken view that Chrysippus gave the testimony of the poets before that provided by common language; see *infra*, p. 233 n. 69.

<sup>32</sup> Apparently, τοιαῦτα is specified by the following ἐχόμενοι τῆς ῥηθείσης φορᾶς, i.e. 'such' could be explained as 'such expressions as are significant because agreeing with the common tendency'.

<sup>33</sup> See *supra*, p. 200; cf. Diogenianus, fr. II Gercke (p.750.23, 40 f.), from which it appears that Chrysippus spoke of 'the truth' in connection with his etymological arguments in the *On Fate* also.

<sup>34</sup> See Ch. 2.3.

is such as he had described it (cf. 5.3, p.200.26 κατὰ τοῦτο; De Lacy: 'all people conform to this', i.e. the common belief). First this is illustrated by the expression 'anger rises' (*ibid.*), which corresponds to the perception of anger as described in the preceding section (see III 1.25; cf. 5.2). In this context, the heart is presented not as the seat of certain passions but rather as the centre of speech (5.3-5); hence the reference to auditory perception (5.5, p.202.1 f.)

Galen is at pains to convey the impression that the other expressions adduced by Chrysippus exclusively pertain to passions such as anger and the like, making his by now familiar point that they merely shore up the Platonic view (5.6 ff.). Likewise the idiomatic expression according to which things said 'go down' (5.4) are said to pertain not to learning or understanding but to the state of being emotionally aroused (5.7). For Chrysippus, however, the idea of the heart as the source of rational discourse is at issue. Thus he mentions a *bon mot* of Zeno (5.4), who in reply to the objection 'You carry all *problems of inquiry* (τὰ ζητούμενα) to your mouth', said 'But not all are swallowed.' The point of this charming little dialogue is not immediately clear, but it seems probable that the person attacking Zeno refers to the fact that the latter speaks openly about all his dilemmas; and Zeno's answer may mean that indeed he does and, in the course of this, he puts forward all kinds of alternatives, few of which, however, are 'swallowed',<sup>35</sup> i.e. but a few results of the inquiry are accepted and stored away in the mind.<sup>36</sup> Thus, the inquiries *qua* thoughts are brought upwards from the seat of the mind and issue from the mouth as the semantic component of spoken language, and some of them return in the same form downwards again. It is clear that Zeno is speaking of a purely intellectual pursuit. Significantly, Galen ignores the anecdote altogether.

Chrysippus, then, lines up expressions connected with purely cognitive thought alongside expressions belonging with passionate states of mind — a distinction which is immaterial to the idea of spoken language as residing in the heart. That this is the idea that Chrysippus is concerned with also emerges from the fragments at III 5.11 and 15 (SVF II 892).<sup>37</sup> And the same scheme turns up again

<sup>35</sup> Cf. III 5.15 (SVF II 892).

<sup>36</sup> True, on our reading the anecdote becomes a bit insipid, but compare the similar vignettes about Stoic scholars recounted in D.L. VII. Other interpretations are submitted by De Lacy *ad loc.*

<sup>37</sup> At III 5.15, p.204.5 note especially φανέντα αὐτοῖς, i.e. the presentations which, as Chrysippus explains, are 'vomited up'.

in his interpretation of the myth of the birth of Athena (*PHP* III 8.3-19 = *SVF* II 909). We must also note the striking verbal correspondences between these three passages and *PHP* III 5.3 ff. (*SVF* II 891).

Behind the common expressions selected at III 5.3 ff. stands Chrysippus' view of thought as internalized discourse and of discourse as externalized thought.<sup>38</sup> This conception also features in his syllogistic argument concerned with spoken language (*PHP* II 5.15-20 = *SVF* II 894), where the heart is referred to as both the place 'from which words receive their meaning' and that 'to which words convey meaning'. This correspondence is significant. In the fragment at III 5.3 ff. Chrysippus prepares the ground for this more formal, technical argument. In other words, this argument is developed from conceptual material drawn from the sphere of common parlance, or common notions. I shall have more to say on correspondences of this sort in due course.<sup>39</sup>

One final remark about this fragment. Chrysippus' evaluation of common language can be illustrated by his reference to the 'appropriate' character of the expressions he discusses (5.5 οἰκειότερον ... οἰκειῶς ... ἄλλοτρίωτερον). In fact, his whole argument here hinges on the concept of appropriateness, whose importance is borne out by its occurrence in a number of related passages.<sup>40</sup> Thus he argues that remarks are said 'to go down' in people because it is the appropriate word for the auditory perception involved, viz. the transference of the sound to the mind in the chest; for if the mind were in the head the word would not be appropriate.

<sup>38</sup> See Chrys. *ap.* Gal. *PHP* III 7.34 (*SVF* II 903a): εὖ μάλα δὲ παριστᾶσι τὸ λεγόμενον, ὥς ἔφην, καὶ ἐν αὐτοῖς γινόμενα μελέται καὶ ῥήσεων καὶ τῶν παραπλησίων. ἐν ᾧ γὰρ ταῦτα πάντα συντελεῖται, πάντως εὖλογον ἐν ἐκείνῳ καὶ τὴν τοῦ λόγου διέξοδον γίνεσθαι καὶ λέγειν ἡμᾶς καὶ διανοεῖσθαι κατ' ἐκείνο. And *ibid.* 42 (*SVF* II 903b): ἀπὸ γὰρ τῆς διανοίας, φησί, δεῖ λέγειν καὶ ἐν ἑαυτῷ λέγειν [ἢ φωνὴν διεξιέναι] καὶ διανοεῖσθαι καὶ ἐν ἑαυτοῖς φωνὴν διεξιέναι καὶ ἐκτὸς ἐκπέμπειν. Cf. Calc. *In Tim.* c.220 (*SVF* II 879, p.236, ll.17-22) The idea had already been articulated by Plato, *Soph.* 263e; cf. *Theae.* 189e, 206d; Arist. *APo.* A 9.76b24-5. But its ancestry stretches back further, see *infra*, p. 246. Cf. also the probably post-Chrysippean distinction between λόγος ἐνδιάθετος and λόγος προφορικός; which was used by the Stoics (Sextus, *M* VIII 275 [*SVF* II 135b, 223]; Porphyrius, *De abst.* III 2) but not exclusively Stoic; for further references see M. Pohlenz, 'Die Begründung der abendländischen Sprachlehre durch die Stoa', *Nachr. Ges. d. Wiss. Göttingen*, Philol.-Hist. Kl., N.F. Bd. III, Nr. 6 (1939) 191; cf. *id.* (1980) 39; (1984) 21 f.

<sup>39</sup> See *infra*, p. 272 f.

<sup>40</sup> *PHP* II 2.10, p. 104.31 (*SVF* 895; combined with φυσικῶς), on which see *infra* in text; III 5.15, p. 204.9 (*SVF* II 892); III 7.45, p. 220.26 (*SVF* II 903, fifth text); IV 5.6, p. 260.16 (from the *On the Passions*).

4.3. *Egō*

At the beginning of *PHP* II, Galen introduces Chrysippus' notorious argument from the word ἐγώ (2.10-11 = *SVF* II 895, first text)<sup>41</sup> as a first instance of the inappropriate, that is to say unscientific, arguments which the Stoic habitually uses. Galen treats this argument at some length, referring for further discussion to his *On Demonstration* and *On the Correctness of Names* (2.6-23). He briefly returns to this argument at *PHP* III 5.24-6 in the course of an overview of all arguments successively adduced by Chrysippus, but here no further information about what Chrysippus said is to be found, and neither does Galen add new objections. There are a few hints that the argument is derived from a context containing other etymological arguments.<sup>42</sup> It seems to be quoted by Galen in full, or nearly so:

We also say ἐγώ ('I') in this way, pointing to ourselves at that place in which thought appears to be, the pointing gesture (δείξεως) being moved there naturally and appropriately; and apart from such a gesture of the hand we nod toward ourselves as we say ἐγώ; indeed the very word ἐγώ is of such a nature and is expressed together with the gesture next described. For we pronounce ἐγώ by dropping at the first syllable the lower lip in a way that points to ourselves, and in conformity with the motion of the chin, the nod toward the chest, and such a gesture, the next syllable is juxtaposed, containing no suggestion of distance, as is the case with ἐκείνος [that person, he].<sup>43</sup>

<sup>41</sup> A very similar argument based on the motions of the mouth, head and eyes accompanying the utterance of several Latin personal pronouns is attributed to the first cent. BCE Pythagorean philosopher Nigidius Figulus (fr. 41 Swoboda = Gellius, *Noct. Att.* X 4.1-4); cf. Dillon (1977) 180. The Stoic colouring of this text (which is printed as *FDS* 562) is unmistakable; cf. esp. the formula *ipsius verbi demonstratione* said of *vos*.

<sup>42</sup> At III 5.27, p.206.14 (ἐξῆς τῶν προειρημένων) Galen indicates that 5.28 (*SVF* II 896), offering the etymology of καρδία, followed it. Despite Galen's other hint at 5.24 ff. the argument concerned with ἐγώ can hardly have been preceded directly by the argument from spoken language at II 5.15-20 (*SVF* II 894), as Von Arnim believed (cf. *SVF* II 911, p.260). See also *infra*, p. 269 n. 27. At II 2.10, p.104.29 f. the words οὕτως δὲ καὶ ... suggest that it followed a similar, i.e. 'etymological', argument. This may have been Chrysippus' argument from the nod towards the chest occurring when we give assent (ἐν συγκαταθέσειν), which is not directly quoted but referred to at II 2.21, p.108.8 ff. in connection with the argument from ἐγώ.

<sup>43</sup> Οὕτως δὲ καὶ τὸ ἐγώ λέγομεν, κατὰ τοῦτο δεικνύντες ἑαυτοὺς ἐν ᾧ φαίνεσθαι διάνοιαν εἶναι, τῆς δείξεως φυσικῶς καὶ οἰκείως ἐνταῦθα φερομένης· καὶ ἄνευ δὲ τῆς κατὰ τὴν χεῖρα τοιαύτης δείξεως νεύοντες εἰς αὐτοὺς τὸ ἐγώ λέγομεν, εὐθὺς καὶ τῆς ἐγὼ φωνῆς τοιαύτης οὐσης καὶ κατὰ τὴν ἐξῆς ὑπογεγραμμένην δεῖξιν συνεκφερομένης. τὸ γὰρ ἐγώ προφερόμεθα κατὰ τὴν πρώτην συλλαβὴν κατασπώντες τὸ κάτω χεῖλος εἰς αὐτοὺς δεικτικῶς· ἀκολούθως δὲ τῇ τοῦ γενείου κινήσει καὶ ἐπὶ τὸ στήθος νεύσει καὶ τῇ τοιαύτῃ



Chrysippus refers to the hand and the finger pointing towards the chest as well as to the head, lips and jaw moving in the same direction when people say 'I'. According to Galen (*ibid.* 13–17), he appends his remark about ἐκεῖνος because he saw that ἐκεῖνος threatened to destroy his case, having its first syllable in common with ἐγώ but bearing an opposite sense. Desperately, the Stoic sought to solve the problem by pointing to the *second* syllables of the two pronouns, arguing that – κει suggests distance whereas – γω does not. This would seem to imply that according to Chrysippus – κει suggests distance because its pronunciation entails the pushing forward of the lower jaw. But nothing in the quoted passage itself suggests that for Chrysippus the second syllable is at issue—this we are told by Galen, who feigns interest in Chrysippus' precise wording (*ibid.* 15).<sup>44</sup> The 'impression of distance' in ἐκεῖνος may simply reside in its relation to ἐκεῖ ('there').

Chrysippus also mentioned women who point their finger in the direction of the chest when they declare that something that has been said 'does not go down here' (*PHP* III 5.8 = *SVF* II 892).<sup>45</sup> He referred to the nod of the head in acts of assent (συγκαταθέσσειν), again using the concept of δειξίς (II 2.20–21 = *SVF* II 895, second text; cf. ἐνδεικνύμεθα, p.108.10). Although Galen gives us no further information, Chrysippus presumably considered the motion of the head towards the chest appropriate to assent as a prime manifestation of the personality, i.e. the mind. To this and the other related passages we may add the reference to aggressive motion directed at the heart, III 7.25 ff. (*SVF* II 903).

As to the argumentative status of these arguments, Galen gives us little to go by. His remark '... if the act of pointing is *adequate proof* (ικανὴ πίστις) for discovering the regent part of the soul ...' (II 2.20) refers to Chrysippus' position; yet it results entirely from his

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δείξει ἡ ἐξῆς συλλαβὴ παράκειται οὐδὲν ἀποστηματικὸν παρενημαίνουσα, ὅπερ ἐπὶ τοῦ ἐκεῖνος συντέτευχεν. The phrase ἐν ᾧ φαίνεσθαι has prompted many emendations: cf. De Lacy's apparatus *ad loc.* These are unnecessary, however: see De Lacy *ad* 104.30–1. We do not have to supply a verb of thinking or saying, *pace* De Lacy, cf. Chrys. *ap.* Gal. *PHP* III 1.11, p.170.12 and 15 (*SVF* II 885).

<sup>44</sup> Thus De Lacy's insertion of '[the second syllable of]' before ἐκεῖνος is unjustified.

<sup>45</sup> They mean to deny that they are moved emotionally by what has been said, see Galen at III 5.10, who mentions reactions of anger and the feeling of being menaced by threats and insults and the like. This may well have been what Chrysippus meant; for him the expression in question pertains to the perception of spoken language, cf. *ibid.* 5.11.

polemical motivation and so is of little use here.<sup>46</sup> To facilitate a more accurate appraisal, we may first compare two non-Stoic texts that illuminate the historical background of Chrysippus' argument, or at least part of it. The first of these is Plato, *Cratylus* 422e-423a. In the direct context, Plato considers the question how the 'first names' (πρῶτα ὀνόματα), i.e. those 'not based upon any others' (422e1), can reveal things as they are.<sup>47</sup> The answer hinges on the concept of 'expression' or 'imitation':

SOCRATES: [...] Answer me this question: If we had no voice or tongue, and wished to make things clear (δηλοῦν) to one another, should we not try, as dumb people actually do, to make signs (σημαίνειν) with our hands and head and the rest of our body?

HERMOGENES: Yes. How else, Socrates?

SOCRATES: If we wished to make clear that which is above and is light, we would, I suppose, raise our hand towards heaven in imitation (μιμούμενοι) of the nature of the thing in question; but if [we wished] to make clear the things that are below and heavy, [we would point our hand] towards the ground; and if we wished to make clear a galloping horse or any other animal, we would, obviously, make our bodily attitudes as much like theirs as possible.

This reference to several modes of imitation serves to elucidate the basic nature of name-giving, which is subsequently called an imitation through vocal expression (423b) as distinct from 'mere vocal' imitation (423c-d; e.g. a man imitating the noises of animals) and from pictorial imitation (423d). These reproduce sound, shape and colour (423d), whereas the art of naming consists in the imitation of the being (οὐσία) of each thing (423e). This is said to be true of the 'first names' (424a-b).

The Stoics, quite in line with the Platonic passage, believed that first names imitated things directly,<sup>48</sup> and the pronoun ἐγώ, which is not explained by reference to one or more other words, surely ranked among the primary sounds accepted by the Stoics.<sup>49</sup> Its imitative character lies not in its sound (onomatopoeia is rejected,

<sup>46</sup> Similarly Galen intimates that Chrysippus regarded the interior perception of the passion as conclusive evidence, see e.g. *infra*, p. 251 f.

<sup>47</sup> I.e. the question of the 'correctness' (ὀρθότης) of names' (422d), which is the dialogue's theme and is also preserved as its sub-title. On the correctness of names as a stock topic of sophistical theorizing on language, see G.B. Kerferd, *The Sophistic Movement* (Cambridge 1981) 68 ff. and on the discussion in the *Cratylus* as influenced by sophistic speculations, *ibid.* 74 ff. and T.M.S. Baxter, *The Cratylus. Plato's Critique of Naming* (Philosophia antiqua LVIII, Leiden 1992) 147-160.

<sup>48</sup> See *supra*, p. 198.

<sup>49</sup> As is suggested by Dahlmann (1964) 9.

or so it seems) but in the pointing gesture involved. What this gesture imitates must be the self-directed motion of the soul, or personality, which is indicated by 'I' on the purely semantic level. (On self-perception as possibly related to this motion see below.) Chrysippus thus indicates a direct and natural relation between gesture and meaning by connecting the pointing gesture (δείξις) with the concepts of being 'natural' and 'appropriate' (φυσικῶς καὶ οἰκείως, p.104.31). It is clear, therefore, that the resemblance between his argument and *Crat.* 422e ff. goes beyond the mere element of pointing to include the imitative quality of a group of so-called 'first names'.

At this point we may adduce our second partial parallel, viz. Lucretius V 1028 ff.<sup>50</sup> Explaining the origin of language, Lucretius compares the way the first names were given to pointing to 'things that are present' with the finger (1032), referring to inarticulate children instead of Plato's dumb people. Here Lucretius does not speak of imitation. Neither does he argue that the pointing gestures occur simultaneously with the primary sounds, saying, like Plato, that their function is merely similar to that of the primary sounds. But earlier in the same context, he does picture the inchoate language through which the first humans communicated as being supported by gestures.<sup>51</sup> Here, the aspect of imitation is clearly involved.

The Platonic *Cratylus* influenced the Stoic view of language in important ways,<sup>52</sup> whatever overall interpretation of the dialogue we may prefer to accept.<sup>53</sup> Apparently, the divergent ideas brought forward in the course of the difficult dialogue made it a suitable

<sup>50</sup> vss. 1028-32: *at varios linguae sonitus natura subegit/mittere et utilitas expressit nomina rerum,/non alia longe ratione atque ipsa videtur/protrahere ad gestum pueros infantia linguae,/cum facit ut digito quae sint praesentia monstrant.*

<sup>51</sup> V 1022: *vocibus et gestu cum balbe significarent.*

<sup>52</sup> See esp. Barwick (1957) 70 ff.

<sup>53</sup> Etymology is listed as part of Platonic philosophy at Sextus, *M.* VII 9 and Cic. *Ac.* I viii 32 f. (cf. esp. 33: [...] *a Platone tradita* / [...] *praeclare enim explicatur* [...] *academiae veteris auctoritas*). The idea that Plato had accepted etymology could only have been based on the *Cratylus*. The passage from Cicero is from an exposition of Old Academic Platonism as understood, and accepted, by Antiochus of Ascalon (his innovations following at § 33 ff.). Thus, the colouring of *Acad.* I 32 f. is unmistakably Stoic: etymology is given a role in demonstration; it is part of dialectic, rhetoric being the 'counterpart' of dialectic. Conceivably, Antiochus took the view that Plato welcomed etymology under Stoic influence as well, cf. Reid *ad loc.* Stoic influence is also palpable in the important chapter at Alcin. *Did.* 6, p.159.44–161.41 H. based on the account of Plato's *Crat.* Cf. Whittaker *ad loc.*

source for thinkers from various backgrounds who, in developing their ideas from it, arrived at different results.<sup>54</sup> So although it is possible that *Crat.* 422e ff. inspired Chrysippus and explains some of the presuppositions involved in his argument from ἐγώ, there is much we do not know about the lines of tradition involved here, and, for all we know on the basis of these three or four passages, there may have been a common stock of ideas connected with 'primary sounds' or the origin of language which, in slightly varying ways, is reflected by Plato, Lucretius and Chrysippus. The Stoic was not concerned with 'primary sounds' merely as part of a *Kulturentstehungslehre* but with the nature of language as spoken in his own day. Drawing on a body of traditional ideas on primary sounds, he may have considered the gestures concomitant with the utterance of ἐγώ and other words to be evidence for their primary character, and hence for the basically natural and imitative character of language as a whole.

Keeping in mind this wider setting, we may also consider Chrysippus' argument as embedded in specifically Stoic doctrine. Pachet has plausibly suggested that the self-designating motion concomitant with the personal pronoun 'I' can be related to the doctrine of οἰκείωσις.<sup>55</sup> Chrysippus' text however does not permit us to identify, *pace* Pachet, the κοινὴ φορά with the δειξίς and to view the φορά-δειξίς, *qua* manifestation of οἰκείωσις, as a supra-personal force.<sup>56</sup> Yet we may feel sure that Chrysippus viewed the δειξίς as the bodily expression of the self-designation of the soul, just as it designates itself simultaneously on a more narrowly defined linguistic, or semantic, level. We know that he posited a very close relation of mind to body in his explanation of bodily motion; Seneca, *Ep.* 113.18 (*SVF* I 525) reports that he and Cleanthes disagreed among themselves over the way to describe the relation of mental events to action. Cleanthes thought that the pneumatic

<sup>54</sup> Dion. Hal., *Comp. verb.* 15.16 reports that well into Hellenistic times the *Crat.* exerted a seminal influence on a variety of thinkers pursuing etymological inquiries.

<sup>55</sup> Pachet (1975) 243.

<sup>56</sup> Pachet (1975) 243: 'Selon Chrysippe, lorsque je dis "je", c'est n'est pas moi comme sujet parlant, mais le mouvement physique lui-même, la φορά, qui me désigne ... Mouvement qui part de l'hégémonique et y retourne, le mot "je" ... semble ... pouvoir être considéré comme un cas particulier du processus d' "appropriation." At 241 n.1 he refers to *SVF* II 886 for δειξίς as motion ('transport'). Pachet's interpretation has been developed further by Le Bouluec (1975) 302 f. See *supra*, p. 161.

ἡγεμονικόν sends out a separate jet of πνεῦμα to the limbs as a motor stimulus. This latter πνεῦμα, he said, should be called 'walking'. Chrysippus on the other hand submitted that the ἡγεμονικόν itself could be called 'walking'. His point in stating his view in this compact manner was that the ἡγεμονικόν acted *directly* on the limbs. Passages such as this remind us that Chrysippus viewed events in the mind as actual physical motions which could be expressed directly in bodily motions (which does not in all cases imply 'impulses', ὁρμαί, in the technical Stoic sense).<sup>57</sup> I shall now pursue this point and look for further doctrinal affiliations, especially those relating to οἰκείωσις.

That the Stoics constructed an analogy between the procedures of word-formation and those of concept-formation has been shown long ago by Steinthal and has been taken up by Barwick.<sup>58</sup> The fact as such, of course, depends on the idea that language reflects rationality.<sup>59</sup> Thus Diocles of Magnesia *ap.* D.L. VII 49 (*SVF* II 52), after pointing out that the account of presentation (φαντασία) and perception precedes that of assent, apprehension and thought because the latter are not formed without presentation, continues:

For presentation comes first; then mind, which has the power of utterance, expresses through language what it experiences by the agency of the presentation.<sup>60</sup>

Hence concept-formation presupposes presentation, and so does language. For the various kinds of presentation and the ways these are generated we may especially adduce the overviews provided at D.L. VII 51 f. (*SVF* II 61, 87), Sextus, *M.* VIII 56 (*SVF* II 88) and XI 250 f. (not in *SVF*). The accounts offered by these two sources may be combined to reconstruct the following scheme. Humans are characterized by rational presentations, which are also called thought processes (νοήσεις, cf. D.L. VII 51). These divide into 'thought processes from perception' (S.), or 'sensory presentations' (D.L.) on

<sup>57</sup> In the case of the action of walking this appears to imply that the regent part of the soul is activated by, or is in the state of, impulse; cf. Inwood (1985) 50 f. I may add that the Stoic view of the relationship between body and soul and of the concept of δειξις anticipate in certain ways modern theories such as that of N. Humphrey, *A History of Mind* (New York 1992); see esp. Ch. 19 ('The question of indexicals').

<sup>58</sup> See Steinthal (1890) vol. I, 322 ff. esp. 334 ff. Barwick (1957) 32 f. cf. also Long (1986) 134.

<sup>59</sup> For which see *supra*, p. 205.

<sup>60</sup> προηγείται ἡ φαντασία, εἴθ' ἡ διάνοια ἐκλαλητικὴ ὑπάρχουσα, ὃ πάσχει ὑπὸ τῆς φαντασίας, τοῦτο ἐκφέρει λόγῳ. Tr. Long-Sedley, slightly modified.

the one hand and 'thought processes not without perception' (S.) or 'non-sensory presentations' (D.L.) on the other. Thus presentations arising directly from sense-perception are distinguished from those based indirectly on it. The latter are formed by the intellect from the former by means of certain mental operations (e.g. similarity, contrariety, composition). Now it is precisely these operations which in other accounts appear as the principles of *word-formation* from the primary words or sounds.<sup>61</sup> Moreover, the 'thought processes from perception' or 'sensory presentations' function analogously to the primary words (sounds) in that both presuppose *direct* perception; we have noted that many primary words (sounds) provide instances of *onomatopoeia* or *synaesthesia*. Here the process described in the sentence from D.L. VII 49 just quoted seems to apply in the simple and direct way it is explained there.<sup>62</sup>

The perception on which ἐγώ *qua* primary sound is based can only be *self-perception*. This agrees with the fact that Chrysippus bases the linguistic phenomena on the common tendency, which itself is said in this case to result from the self-perception of the soul (*PHP* III 1.25 = *SVF* II 886). The word-formation of ἐγώ is determined by the *interior perception* of the self-directed motion of the soul in that the motions of the head and lips that imitate this motion produce this particular sound. If so, the 'performance' of ἐγώ may be said to express, both in bodily motion and in sound, the basic mechanisms of οἰκείωσις, which is a process of *self-recognition*.<sup>63</sup>

I believe that the epistemological implications connected with the Stoic doctrine of self-perception apply to the argument from ἐγώ as well.<sup>64</sup> Although we should be cautious not to press the meaning of a single word, the use of φαίνεσθαι (*PHP* II 2.10, p.104.30; with the infinitive)<sup>65</sup> may be meant to indicate the epistemic state belonging with the utterance of ἐγώ. If a technical sense is involved, an 'non-cognitive' φαντασία may be indicated in accordance with

<sup>61</sup> No extant account of concept-formation can be paralleled completely by one concerned with word-formation as regards the number of principles mentioned and the terms used, but the similarities are convincing, see Barwick (1957) 33.

<sup>62</sup> Cf. Augustine, *De dialectica* ch.6 (p.95 Pinborg-Jackson): cunabula verborum [= πρῶται φωναί] ..., ubi *sensus rerum* cum sonorum sensu concordarent.

<sup>63</sup> See *supra*, p. 177.

<sup>64</sup> Cf. *supra*, pp. 174 ff.

<sup>65</sup> On the infinitive phrase ἐν ᾧ φαίνεσθαι see *supra*, n. 43

Stoic epistemology, i.e. one that *may* agree with the truth and in this case actually does (cf. *PHP* III 5.3, p.200.24: κατὰ τὴν ἀλήθειαν, on which see above), although it does not count as self-guaranteeingly true. But even if we refrain from giving a technical Stoic sense to the phrase in question, it denotes some degree of uncertainty or lack of clarity.

The conspicuous role of the concept of δείκνυμι (δείξις) suggests that it is doctrinally loaded, that is to say that not merely the gesture of indicating or pointing is at issue, as Galen takes it to be. This assumption is confirmed by several Stoic texts employing δείξις as a dialectical concept, on the basis of which it can be connected with both ἐγώ and ἐκεῖνος in a way which parallels, and helps to explain, the distinction between these two words at *PHP* II 5.10-1. At Sextus, *M.* VIII 96 (*SVF* II 205) δείξις is used to delimit the class of definite non-complex expressions (ἀπλᾶ ἀξιωματά):

Definite expressions are expressed demonstratively (κατὰ δείξιν), e.g. this (man) (οὗτος) is walking, this (man) (οὗτος) is sitting. For it is I who indicate (δείκνυμι) individual men. Indefinite according to them are those in which an indefinite part is dominant, e.g. someone (τις) is sitting.

D.L. VII 70 (*SVF* II 204), though not speaking of δείξις, gives the same division; definite propositions are exemplified once again by a sentence featuring οὗτος. As examples of indefinite propositions he gives a sentence having τις in subject position, and, rather remarkably, ἐκεῖνος κινεῖται ('that man/he moves'). These two passages agree with several grammatical texts reflecting Stoic linguistic ideas.<sup>66</sup> Here the class of so-called 'articles' (consisting largely of what we call pronouns), as one of the 'parts of speech', is divided into indefinite and definite articles, the former including the indefinite, relative and interrogative pronouns, like 'someone', 'some' (τις), 'who', and 'who?' and the latter including the personal and demonstrative pronouns, like 'I' and 'this/that' (οὗτος, τοῦτο). Clearly, this division separates the words on whose occurrence the distinction between definite and indefinite propositions is based according to Sextus and D.L. These two sources moreover indicate that the 'articles' featuring in the definite propositions have a 'deictic' or demonstrative quality. In some grammatical texts the expression 'deictic articles' is actually found to designate the same

<sup>66</sup> Prisc., *Inst.* II 30 (*Gramm. Lat.* II p.61); Apoll. Dyscolos, *De pron.* 261, *De synt.* 2.5 p.100.21; 2.12. See Lloyd (1971) 67 f.; Pachet (1975) 242.

class.<sup>67</sup> According to the above testimonia ἐγώ is 'deictic', and in this respect is opposed to ἐκεῖνος. This linguistic theory can be traced back to Chrysippus, who, as we have noticed, likewise distinguishes these two pronouns, associating ἐγώ with δεῖξις (*PHP* II 2.10-1 = *SVF* II 895).<sup>68</sup>

The concept of δεῖξις has an interesting ontological implication. Pointing to, or indicating, presupposes the existence of the object indicated, i.e. its presence here and now. This, then, is also true of the designating ('deictic') term.<sup>69</sup> In a report of Chrysippean doctrine the proposition 'this man (he, οὗτος) is dead' is called impossible, whereas 'Dion is dead' is said to be possible.<sup>70</sup> This doctrine also underlies Chrysippus' argument concerned with ἐγώ (*ibid.*). Here too the deictic term in question pertains to corporeal being (i.e. the soul) and implies direct awareness thereof. And this awareness cannot but comprise the place of that corporeal being.<sup>71</sup>

<sup>67</sup> Apoll. Dysc. *De pron.* 435.18 f. ἄρθρα δεικτικά; *De synt.* p.135.12 ff. Uhlig with Frede (1978) 54.

<sup>68</sup> Cf. Pachet (1975) 242, who highlights *PHP* II 2.10-1 (*SVF* II 895) in discussing δεῖξις as a dialectical concept. Chrysippus' argument is passed over in silence by Frede (1974) 59 ff., who tries to remove ἐκεῖνος from its role at D.L. VII 70, as many have done before him (for references, see Frede *loc. cit.*), emendation being among the instruments employed to this purpose. Chrysippus' argument, however, should be added to the evidence. This provides a self-consistent picture, whatever qualms we may have concerning the status of ἐκεῖνος. Cf. Lloyd (1971) 68, on Sextus, *M.* VIII 96: '... "expressed demonstratively" cannot define a purely formal category; it is not the word which indicates or points, but (as Sextus says) I who points. The fact that a word belongs formally—that is, when restricted to its narrowly linguistic environment—to the same class as 'this' does not suffice to make it 'definite'; and this is illustrated by what would otherwise be a serious difficulty, Diogenes Laertius' example [scil. at VII 70] of an indefinite proposition.' Further discussion of these and related topics in Lloyd, 'Definite propositions and the concept of reference', in: Brunschwig (1978) 285-96; R. Goulet, 'La classification stoïcienne des propositions simples', *ibid.* 176 ff.

<sup>69</sup> On this aspect of deictic signs, cf. J. Christensen, *An Essay on the Unity of Stoic Philosophy* (Copenhagen 1962) 51; Lloyd (1971) 68.

<sup>70</sup> Alex. Aphr. *Comm. in Arist. APr.* p.177.25 ff. Wallies (*SVF* II 202a, first text); cf. esp. the following explanatory remarks: ... μηκέτ' ὄντος τοῦ τὴν δεῖξιν ἀναδεχομένου· ἐπὶ γὰρ ζῶντος καὶ κατὰ ζῶντος ἡ δεῖξις. Cf. also Philoponus *in APr.* p.166.2-5 Wallies (*SVF* II 202a, second text): τὸ γὰρ τοῦτο δεικτικὸν ὑπάρχον, ὃν τι πρᾶγμα σημαίνει, τὸ δὲ τεθνάναι μὴ ὄν· τὸ δὲ ὄν ἀδύνατον μὴ εἶναι. τὸ ἄρα τεθνάναι τοῦτον ἀδύνατον. Cf. also Ammonius, *in Arist. APr.* (CAG IV 6), p.50.13 Wallies. There can hardly be any doubt that for Dion ἐκεῖνος might have been substituted without making the proposition impossible. It may not be too far-fetched to corroborate this point by recalling the fact that ἐκεῖνοί was idiomatically used to refer to the dead: see *LSJ* s.v.

<sup>71</sup> See *supra*, p. 178 n. 133 with text thereto.



#### 4.4. *Cases of Alleged Self-Refutation*

Chrysippus in a fragment quoted at *PHP* III 4.4 (*SVF* II 902) refers to the expressions ἄσπλαγχνος ('without inward parts', i.e. insensitive, merciless) and ἐγκέφαλον μὴ ἔχειν and ἐ. ἔχειν ('to have (no) brain', i.e. to be clever or not). Here he may be taken to be arguing that people put these expressions on a par with others such as the ones he had already pointed out and to which belongs at least ἀκάρδιος ('faint-hearted', i.e. cowardly).<sup>72</sup> That he should refer to ἀκάρδιος we readily understand; it is less clear why he refers to the entrails and even the brain as featuring in other expressions. The correspondence between ἀκάρδιος and the other terms must lie in the fact that they all pertain to mental phenomena. Apart from scoffing at the opacity of the passage, Galen not surprisingly intimates that Chrysippus has here assembled expressions that are at odds with the Stoic position (4.5 ff.). But such negligence strains credulity.

Chrysippus' point becomes more clear from his remark that the brain is taken to be 'something similar [scil. to the heart]' or to have 'an authority (κυρίαν) similar to the [other?] innards' (4.4, p.192.24 f.). What Chrysippus does here is to *explain* expressions that mention the brain by indicating what people believe using them, or suggesting why they use them—and it is this aspect that should be given full weight in interpreting his argument. Κυρία, it may be recalled, is one of the two words from which καρδιά is derived.<sup>73</sup> This derivation entails a number of subtle procedures and clearly represents a case where an existing relation between words eludes most people (see below). So there is no inconsistency when the same word is connected with the brain and the innards here. It is in fact quite possible that Chrysippus deliberately uses it here again to illustrate people's failure to hold on to the correct conceptual relation.

We may compare Chrysippus' words as quoted at III 4.4 (p.192.19 ff.): 'We say that some people have or do not have a brain, *surmising*

<sup>72</sup> For a different interpretation see Le Boulluec (1970) 304 f. If I understand him correctly, he argues that Chrysippus attempted to make the expression referring to the brain speak in his favour by extending its sense so as to assimilate it to that borne by the other expressions. But his explanation of how Chrysippus effected this assimilation is unconvincing and relies in part on Galen's critical remarks.

<sup>73</sup> Cf. *supra*, p. 199.

(ὑπονοοῦντες) that in this way (?) we also say that some people have not, or have, a heart.' 'ὑπονοοῦντες', as a common term, expresses a sense of uncertainty or provisionality.<sup>74</sup> But, as we have seen, as a technical term in Stoic epistemology, it designates the type of cognition which results from assent to an unclear, 'non-cognitive' (ἀκατάληπτος) presentation and is characteristic of the common run of mankind.<sup>75</sup> People use the expressions in question without a clear realization of the truth of the matter. As the notion that the soul, or personality, resides in the heart is indistinct, references to other inward parts may appear in expressions that likewise designate mental states. Thus people have only a vague idea why they attach psychic functions to specific organs. The indistinct character of the cognition may also be inferred from the fact that two alternative reasons are suggested why people refer to the brain the way they do (*ibid.* 4.4, p.192.23 ff.). *PHP* III 7.25 (*SVF* II 903) presents a similar case. Chrysippus here points to the expression 'to tear the heart out', said of revengeful persons threatening others. Clearly, the heart as the seat of the principle of life is at issue. But Chrysippus adds that these persons are sometimes also 'moved in a similar manner against the rest of the inward parts.' Here Galen tells us once again that Chrysippus is making a case for the opposite camp (*III* 7.26). As it is, Chrysippus is in a position to speak as he does because he is thinking of a vague and imprecise awareness whose linguistic and physical expression (*viz.* the accompanying motion)<sup>76</sup> is often directed at the heart, but can also be directed at other organs. Finally, we may compare, in the myth of the birth of Athena, the role of the belly in which Metis is stored after being swallowed by Zeus (*ibid.* 8.17 = *SVF* II 909). All this of course agrees with Chrysippus' initial observation (*ibid.* 1.15 = *SVF* II 885) that *clear* perception is not available in the matter under investigation.

The references to the mental state reveal the specific interest Chrysippus takes in this type of argument. The etymological arguments from the *On Fate* as reported by Diogenianus evince the same emphasis on Chrysippus' part.<sup>77</sup> Here Varro's distinction

<sup>74</sup> Cf. *PHP* V 2.14, in a fragment from Chrysippus' *On the Passions* (cf. *SVF* III 465).

<sup>75</sup> See *supra*, p. 193

<sup>76</sup> Cf. the role of motion in the argument concerned with ἐγώ, *supra*, pp. 206 f.

<sup>77</sup> See esp. fr. II Gercke (II.16 ff.): ἔστω γὰρ ταύταις ταῖς ἐννοίαις κεκρημένους τοὺς ἀνθρώπους, καθὼς αὐτὸς ἐτυμολογεῖ, τὰ ὀνόματα τεθεῖσθαι τὰ ἐκκείμενα

between several levels of etymological explanation (*L V 8*) may be adduced as well.<sup>78</sup> These levels include that of linguistic connections that are clear to anyone and need no explanation (1), but also that of the abstruse expressions found in poetry and characteristically interpreted by the 'grammarians' (3). In between come those expressions that philosophy explains (2). Level (1) and (2) were of particular interest to the Stoics in view of the value they attached to the common notions. And for category (2) we may also posit an intermediate *cognitive* state. It seems to be a fair assumption that this state is exemplified by the semi-conscious and imprecise conceptions discussed in the *On the Soul*.

Thus in the *On the Soul* Chrysippus appears on the whole to have refrained from indulging in the type of 'etymological' analysis that depends on the ingenuity of the interpreter and produces unexpected results through elaborate procedures. Perhaps the explanation of καρδία is an exception, being comparable to more intricate Stoic etymological analyses found elsewhere, and hence liable to the objection of being arbitrary and unobvious, such as is voiced by Galen. But the expressions whose literal and physical sense, Chrysippus argues, is still to some extent present in the speaker's mind appear to have predominated. As we have seen, the appeal to gestures and the like may have been based on much more widespread ideas and intuitions than is suggested by Galen's objections, with which *we* might be inclined to sympathize. There is, as we have noticed, some evidence that they played a conspicuous role in linguistic speculations before Stoicism and among other contemporary thinkers.

The fragments *On the Soul* add important information to our other evidence in that they cast light both on the epistemological justification of Stoic etymology and on its function in philosophical discourse. We have found that the etymological arguments are advanced in the context of what Chrysippus calls the 'common belief'. Their role and status is comparable to that of common experience as considered apart from its linguistic expression: both fields of reference consist of relatively indistinct notions of the

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δοξάζοντας τὸ πάντα κατειληφέναι τὴν εἰμαρμένην ... The expression ταύταις ταῖς ἐννοίαις pertains to the examples of Chrysippus' etymological derivations Diogenianus has given in the section that directly precedes this sentence (II.1 ff. = *SVF* II 914).

<sup>78</sup> See also *supra*, p. 202 n. 28 and text thereto.

public at large, though divergences occasionally occur. This constitutes raw conceptual material which Chrysippus takes as his point of departure. As we have also noticed, this is borne out by the way in which he structures his discussion, treating common opinion and common parlance first. As will become clear, the etymological passages were linked not only to the directly preceding section on common opinion but also to the following one dealing with poetry. This concerns not only expressions featuring the passions but also expressions that lead up to Chrysippus' all-important argument concerned with spoken language.<sup>79</sup>

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<sup>79</sup> See *infra*, Ch. 5.6. ff.

## CHAPTER FIVE

### POETRY

#### 5.1. *Introduction*

Chrysippus' quotations from Homer, Hesiod and the tragedians, which Galen discusses at *PHP* III 2-3, represent a typical feature of his style of argument in general.<sup>1</sup> A full discussion of the relation between poetry, myth and philosophy as conceived by the Stoics—a vast subject in itself—would take us beyond our present scope.<sup>2</sup> My main concern in this chapter is with the status and function of the poetic material within the framework of Chrysippus' argument in the *On the soul*, that is to say, as part of his procedure of lending plausibility to the thesis that the intellect resides in the heart. Nonetheless I shall first make a few preliminary observations on the Stoic concern with poetry in general (Ch. 5.2) and adduce evidence from other sources illustrating the method of 'articulation' (διάρθρωσις) as applied to poetry (Ch. 5.3). Next, I shall highlight certain aspects of the *structure* of the *On the soul* relevant to the function and status of the poetic testimony (Ch. 5.4). Finally, I shall address the numerous lines pertaining to θυμός ('spirit', 'anger'), attempting to explain Chrysippus' particular interest in this concept (Ch. 5.5). But other mental phenomena are encountered too (Ch. 5.6): the interior perception of passions such as grief, which had been adduced by Chrysippus in the preceding account of

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<sup>1</sup> Cf. *supra*, p. 145.

<sup>2</sup> The secondary literature on Stoic concerns with poetry is enormous, see e.g. Stern (1893); F. Wehrli, *Zur Geschichte der allegorischen Deutung Homers im Altertum* (Diss. Leipzig 1928); Buffière (1956) *passim*; De Lacy (1948); Jean Pépin, *Mythe et Allégorie: Les origines grecques et les contestations judéo-Christiennes* (Paris 1976), esp. 125 ff., 146 ff.; Le Boulluec (1975) 301 ff.; Veyne (1983), esp. 73 ff. (on Chrysippus); R. Lamberton, *Homer the Theologian: Neoplatonist Reading and the Growth of the Epic Tradition* (Berkeley-Los Angeles-London 1986) 25 ff.; Steinmetz (1986); Mansfeld (1985a), esp. 124 ff.; Mansfeld (1985b); Hadot (1987); cf. also Most (1989) 2014-65, esp. 2020 ff. Long (1992). On the evidence relating to Chrysippus in particular see esp. N. Zeegers-vander Vorst, *Les citations des poètes grecs chez les apologistes chrétiens du IIe siècle* (Louvain 1972), 75 ff., 94 ff., 99 f., 153 ff.

common experience (see Ch. 2.2), is developed further on the basis of poetical testimonies. Similarly, the idea that spoken language is centred in the heart appears in the contexts of common parlance and poetry alike (see Ch. 4.2). It is these recurrent motifs in particular which facilitate the study of Chrysippus' method of conceptual articulation.

## 5.2. *Stoicism and the Poets*

The Stoics followed Aristotle in using opinions of the public and 'experts' alike as material for dialectical argument.<sup>3</sup> On the philosophical value of poetical myth they were divided however. In *Met. A.*, Aristotle had argued an all-important distinction between the line of thinkers that began with Thales and mythological poets, or 'theologians', such as Hesiod.<sup>4</sup> The former ones are concerned with natural philosophy and qualify as thinkers who furnish ideas which, however inchoate, may serve as material for philosophical discussion. The latter are to be excluded because their products lack the clarity which would justify this status.<sup>5</sup> On the whole Aristotle's distinction between natural philosophy and ancient theology may not have been quite so clear-cut, but there is a marked difference: the Stoics did accept poetical myth as material suitable for philosophical interpretation. Cleanthes appears to have held that the best way to speak about the gods is in verse.<sup>6</sup> And Chrysippus

<sup>3</sup> See *supra*, p. 18.

<sup>4</sup> On Aristotle's argument in *Met. A.* see Mansfeld (1985a), especially 122 ff. on the Stoic attitude towards poetical myth as compared with Aristotle's.

<sup>5</sup> See Mansfeld (1985b) 49, 54.

<sup>6</sup> *SVF* I 486 with Mansfeld (1985a) 125 f. Chrysippus, too, reflected on the most suitable mode of expression for theological matters; according to a reliable report (*SVF* II 1008), he said that theology (τοὺς περὶ τῶν θεῶν λόγους) is rightly called a mystery; initiation into it should come only at the end of the philosophical curriculum (namely, as the culminating part of physics; cf. the didactic order at *SVF* II 42), cf. Mansfeld (1979) 134 ff., P. Hadot, 'Les divisions des parties de la philosophie dans l'Antiquité', *Museum Helveticum* 36 (1979) 201-23, esp. 216. In this connection Chrysippus recommends being silent about the Gods towards the uninitiate, 'for it is a great struggle to hear the correct things about the Gods and be self-restrained in respect of these.' The truth about the Gods, then, may not be divulged right away—probably for fear of its being misunderstood, ignored or rejected. Chrysippus may be thinking of poetic myth as one of the main provinces of theology (*SVF* II 1009, p.300, l.11 f.). If so, his remark could also be taken as a justification of the philosophical interpretation of myth as a (deliberately) indirect mode of exposition; contrast the view taken by Long (1992), see *infra*, n.9. For an

in the *On the Soul* presents an allegorical interpretation of the myth of the birth of goddess Athena, arguing that it prefigures the Stoic doctrine that spoken language issues from the heart (III 8 = SVF II 908).<sup>7</sup> This important fragment shows that he believed myth to contain hidden insights to be uncovered by the philosopher. It implies that Chrysippus, like many fellow Stoics, took a more optimistic (though not entirely unqualified) view of the conceptual clarity, and possibilities of further clarification, of myths than Aristotle had done. His position may have been based on assumptions concerning the higher level of rationality of the 'ancients' (with whom early poets such as Homer and Hesiod are often associated; see below). The difference from Aristotle involved here also emerges from the fact that Chrysippus aligned the statements of poets with a physical passage from Empedocles (*PHP* III 5.21 f.), a natural *philosopher* in Aristotle's eyes.<sup>8</sup>

The Stoics are often said to have practised allegoresis. But it is worth noting that Chrysippus' mode of interpretation is almost invariably non-allegorical.<sup>9</sup> Psychic functions are associated with the heart on their literal or 'surface level'—no specific techniques, etymological or other, are employed to uncover a hidden or underlying meaning<sup>10</sup> in order to accommodate them to Stoic doctrine. In all these cases neither complete myths nor narrative contexts are at

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attitude similar to Chrysippus' (SVF II 1008) see Plato's well-known statement from the *Timaeus* (a dialogue Chrysippus knew well (cf. *supra*, p. 192): 'The maker and father of this universe is hard to find and having found him it is impossible to declare him to all mankind' (28c). For the view that knowledge of the divine is something superhuman, see also Plato, *Symp.* 204a; Arist. *Met.* A 2.983a.

<sup>7</sup> On which see further below.

<sup>8</sup> See esp. Arist. *Pol.* A.1447b17–8 (= Emp. *DK* 31 A 22): Empedocles' poetry has only its metre in common with Homer's, Empedocles being more a φυσιολόγος than a poet.

<sup>9</sup> As is also observed by Steinmetz (1986) 27 and Long (1992), who launches a concentrated attack on the 'orthodox' view that the Stoics were allegorists. Long may however be too rigorous in precluding all forms of allegoresis from the Stoics, as Chrysippus' interpretation of the myth of Athena's birth suggests. Here too the myth rather than the poet is subjected to analysis. But it is an open question whether Chrysippus' procedure commits him to seeing the people who first conceived of the myth as deliberately encoding their message—which implication, as Long stresses, is involved in allegory in its strong sense.

<sup>10</sup> The term used in early allegoresis is ὑπονοία, see Plato, *Resp.* B, 378d3–7; Xen. *Symp.* III 3–5; ps. Plut. *Hom.* B 92, p. 45 Kindstrand; cf. also the term σύμβολον used by Chrysippus, *infra* in text. The term ἀλληγορία is of a later date.

issue but individual statements by poets claimed to anticipate the Stoic position.

An exception, however, is Chrysippus' interpretation of Hesiod's version of the myth of the birth of Athena (*PHP* III 8.1-18 = *SVF* II 908-9).<sup>11</sup> Fearing she would give birth to someone more powerful than himself, Zeus swallowed his wife Metis (a transparent personification: 'Wisdom', 'Craft') and put her in his belly when she became pregnant. Thereupon Zeus gave birth to Athena by way of his head (*Theog.* 886 ff.).<sup>12</sup> Chrysippus treats this myth as a scheme of signs, or symbols (σύμβολα),<sup>13</sup> which should be decoded in terms of another one, viz. a specific Stoic doctrine on

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<sup>11</sup> In fact Chrysippus presents two Hesiodic versions, first citing *Theog.* 886-890; 900, 924-6 (III 8.9-10) and next a text lacking from the extant mss. of the *Theog.* (*ibid.* 11-14). This second account—which according to Chrysippus followed in the *Theogony* (11, p.226.2-3)—is printed as *fragmentum dubium* 343 by Merkelbach and West. The two texts partly overlap, having the main points in common, viz. the swallowing of Metis and the birth of Athena from Zeus' head. These elements, Chrysippus notes, are also present in other current versions of the same myth (8.5-8); so the choice of any of these does not affect his interpretation (8). Pace Long (1992) 58 the expression 'both accounts' (7, p.224.19) does not pertain to the two quotations from Hesiod, but to Hesiod's version on the one hand and the accounts by others on the other. The point is of considerable importance because it shows Chrysippus to be interested in the myth rather than the poet. For further discussion see Kauer (1959), esp. 38, who argues that the fragment never had anything to do with the *Theogony*, but is derived from an old epic poem where Athena's birth was treated independently of Hesiod. But the version hinted at by Chrysippus at 8.5, p.224.13-14 (τινῶν -- Θέμιδι) can hardly have been the one from which the fragment has been derived. Chrysippus not only says it comes also from the *Theogony*, he is also quite emphatic about choosing Hesiod's version in preference to the others. On Chrysippus' reason for adding the second quotation, see next n.

<sup>12</sup> Note that the fragment which Chrysippus goes on to quote (see previous n.) differs in two points of detail relevant to his exegesis: first, it says that Metis becomes pregnant only after being swallowed (p.226.13-5); second, it adds that Metis remained hidden in Zeus' inner organs after Athena's birth (*ibid.* 16-17). Both elements fit Chrysippus' explanation that Metis stand for techniques, i.e. conceptual thought.

<sup>13</sup> Chrysippus uses the term σύμβολον three times; at 8.4 and 18 where it means the sign or code, and at 8.15, where it rather designates that which is signified (De Lacy renders 'allegorical meaning'). Its repeated occurrence here suggests that we are dealing with a *technical term* used by Chrysippus and his Stoic opponents in the study of poetic myth. Cf. the verbatim fragment from Chrysippus' *Περὶ καλοῦ καὶ ἡδονῆς* quoted by Gellius, *NA* XIV 4 (cf. *SVF* III, p.197 f.), where it is used for the properties of another personified concept, Justice; cf. also next n. The term σύμβολον was to become central to later Platonist allegoresis, cf. J. Dillon, 'Image, Symbol and Analogy: Three Basic Concepts of Neoplatonic Allegorical Exegesis', Study XXVIII in his collected papers: *The Golden Chain*, Variorum, London 1991.



human physiology.<sup>14</sup> The term allegory (in a fairly strong sense, I would think) does apply.

We should also note that this exegesis is occasioned by certain Stoics<sup>15</sup> who argued for the encephalocentric view.<sup>16</sup> On their interpretation, the birth of Athena, who represents wisdom and prudence (*ibid.* 1.4: μήτιν οὔσαν καὶ οἶον φρόνησιν),<sup>17</sup> signifies that the regent part is in the head because she is born from Zeus' head. Chrysippus, after quoting two Hesiodic versions of the myth (III 8.9-14), argues (III 8.15 ff.) that Metis stands for 'a kind of prudence and technique in life' (τις φρόνησις καὶ περὶ τὸν βίον τέχνη, *ibid.* 16, p.226.25-26).<sup>18</sup> The myth, he argues, indicates that techniques must be 'swallowed' and stored up within us. So the deeper meaning that emerges here is consonant with the Stoic view of speech as going down to the heart, or at least the trunk.

Chrysippus goes on to associate the techniques with 'things said' (τὰ λεγόμενα, *ibid.* 1.27), presumably in view of the conceptual, or semantic, component they share; both discourse and technique imply conceptual thought.<sup>19</sup> He shores up this point by recalling certain common expressions about spoken information being

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<sup>14</sup> In line with his general thesis (see *supra*, n. 9), Long (1992) 58 f. does not accept this fragment as a piece of allegoresis, speaking of demythologization instead. But now the issue threatens to become verbal. Long also remarks that despite this demythologization Chrysippus 'retains the obvious link [...] between Metis as goddess and μήτις as a word signifying intelligence. But the personification of concepts instantiated here was from the beginning part and parcel of allegorical poetry in the narrative mode; cf. Long's own remark on p.65: 'They [scil. the Stoics] did not make the mistake of supposing that a myth's meaning is identical [...] to its function in a larger story (the personification of concepts) ....'

<sup>15</sup> Chrysippus merely refers to 'some people' (τινας), III 8.3, p.224.2. But these allegorizers are identified as Stoics by Diogenes of Babylon *ap. Philod. De pietate* col. IX 9 ff. (SVF III Diog. fr. 33, II 910). See further *supra*, p. 141 n. 26.

<sup>16</sup> Cf. Long (1992) 59 who qualifies Chrysippus' procedure as 'scrupulous, closely argued and even, perhaps, ironical' (italics mine). This would seem to imply that Chrysippus is engaged in a dialectical exercise in the sense that he merely fights his opponents with their own weapons. But on the other hand, it should be kept in mind that these opponents are Stoics too.

<sup>17</sup> For this and similar allegorizing explanations of Athena, see G. Jöhrens, *Der Athenahymnus des Ailios Aristeides* (Bonn 1981) 393-437 ('Ethische Allegorien').

<sup>18</sup> On the Stoic view of virtue as an 'art of life' see SVF III 202, 560, Sen. *Ep.* 95.7.

<sup>19</sup> Cf. the Stoic definition of technique' (τέχνη) as a 'system of concepts organized with a view to a useful end in life', SVF I 73, II 93-7.

'swallowed' and stored away in the belly.<sup>20</sup> It is noteworthy that he establishes a link between two separate fields of reference from which he extracts one and the same pattern of thought. Moreover, we must note that the belly<sup>21</sup> represents an imprecise notion insofar as the heart is concerned, though it may be taken to exclude the head.<sup>22</sup>

The bizarre circumstances of Athena's birth, Chrysippus says, neatly illustrate the aspect of multiplication involved in techniques and sciences: it is only reasonable that 'such an art, on being swallowed, gives birth in people to a daughter similar to the mother' (III 8.17). This brings him to the route by which knowledge, as spoken language, issues from the body. According to the dissident Stoics, Hesiod's reference to the *crown* of Zeus' head (*ibid.* p.226.15 πᾶρ κορυφήν, cf. p.224.31 ἐκ κεφαλῆς) indicates that the intellect (Athena) resides in the head, not the heart. So Chrysippus has to give this particular element a different twist. The reference to the crown, he argues, represents 'a more common shift of meaning', so there is no obstacle to assuming that the mouth rather than the crown is meant. Moreover, Athena is not said to come into being in Zeus' head, but to *issue from it* (*ibid.* 8.18-19). Naturally enough, Galen seizes on the the crown of Zeus' head, obviously the weakest spot of the exegesis (*ibid.* 8.27-8). Here, it seems, Chrysippus had run into a difficulty typical of allegorists.<sup>23</sup>

A further aspect should be noted. Chrysippus knows that the myth as found in (ps.)Hesiod is one among a plurality of versions.<sup>24</sup> He opts for (ps.)Hesiod's version on the grounds that it is fuller than that used by his opponents, who, he says, are unaware of the details of the story (*ibid.* 8.5-8).<sup>25</sup> But at the same time he

<sup>20</sup> See *supra*, p. 216.

<sup>21</sup> Theog. 890 (quoted 8.9, p. 224.28); fr. dub. 343, 1.7 (*ibid.* p.226.10) (νηδύν); *ibid.* 1.16 (ὑπὸ σπλάγχχνους). Note that Chrysippus at III 8.16 implies that 'being stored in the belly' (κοιλίαν) as said of verbal messages is also a common expression. But unlike the other expressions mentioned here, it is not discussed in the context of common parlance or anywhere else in the *On the soul*.

<sup>22</sup> Cf. *supra*, p. 216.

<sup>23</sup> Cf. J. Whitman, *Allegory. The Dynamics of an Ancient and Medieval Technique* (Oxford 1987) 3 f.: 'Allegorical interpretation repeatedly departs from the apparent meaning of the text, reinterpreting it in order to sustain a correspondence. Needless to say, this places a great strain on the text, and as the divergences widen, the allegory is liable to break.'

<sup>24</sup> For other extant versions (viz. in ps. Apollodorus, the Homeric hymn to Apollo and Stesichoros) cf. Kauer (1959) 43-55 and see *supra*, n. 11.

<sup>25</sup> See *supra*, n. 11.

underlines the common element in the current versions which is sufficient for meeting such objections as one could raise against his interpretation, viz. the swallowing of Metis and the birth of Athena inside Zeus (8.7). As far as the main point at issue is concerned it is not decisive which version is used (*ibid.* 8.8). Consequently, Chrysippus, though referring to (ps.)Hesiod as a particularly important source, is interested in the myth rather than the individual poet.<sup>26</sup>

So if it is not so much Hesiod who anticipated a specific Stoic doctrine, but the ancient people among whom the myth arose, what is it that lends their view its argumentative force? One could point to the Stoics' reliance on the common notions. They did not regard their own age as specially privileged in its share of Reason.<sup>27</sup> But this does not explain their particular concern with myths from the past as distinct from—and in addition to—notions current in their own days. Clearly the Stoics sought to appropriate traditional Greek παιδεία, including poetry and myth. But it is plausible that they also gave specific theoretical support for this appropriation of traditional ideas.

The early Stoics took into account widespread notions concerning the origin of man and his culture, notably the idea of a primordial Golden Age<sup>28</sup> characterized by a morally superior and

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<sup>26</sup> Of course, the Stoics described poets such as Hesiod and Homer as intelligent or wise, associating them with the 'ancients' as far as their degree of insight was concerned. Yet our evidence does not warrant the assumption that they considered them full-fledged proto-Stoics. The view of Homer as the wise poet was of course common, cf. e.g. Heracl. *DK* B 56, Plato, *Theae.* 194e, *Lg.* 776e, Isocrates 13.2; cf. W.J. Verdenius, 'Homer, The Educator of the Greeks', *Med. Kon. Ak. Wet. afd. Lett.* N.R. 33 no. 5 (Amsterdam-London 1970) 9, who points to the didactic value generally accorded to the Homeric epics with regard to a broad range of subjects and skills. However, our textual evidence does not warrant the assumption that they were considered full-fledged proto-Stoics. On the contrary, the Stoic appear to have held that the poets had embroidered on ancient myths, thereby introducing opinion and falsehood; see further, *infra*, p. 228.

<sup>27</sup> Long (1980) 165 f., Veyne (1983) 153, Steinmetz (1986) 26. For the natural conceptions as entertained by 'the ancients' and expressed in a veiled, i.e. a mythical, manner, see Strabo X 3.23, no doubt a Stoicizing passage.

<sup>28</sup> See for example the collection of texts in A.O. Lovejoy and G. Boas, *Primitivism and Related Ideas in Antiquity* (Baltimore 1935), notably the well-known account of the Golden Age in Hesiod (*Op.* 90 ff.), a poet of special importance to the Stoics. This widespread interest among the ancients is the subject of many modern studies; see e.g. W.G. von Uexküll-Gyllenband, *Griechische Kultur-Entstehungslehren*, *Bibl. f. Philosophie* 26, Beilage z. Heft 3/4 d. *AGPh* 36 (Berlin 1924), esp. 41 ff. (on the Cynics and the Stoics); W.K.C.

happier life.<sup>29</sup> According to a doctrine ascribed to Zeno, the first human beings sprang from the earth with the help of the Fire, i.e. of divine providence (*SVF* I 124). Chthonic origins constitute a traditional picture too. Likewise they appear to have accepted the common idea that the earliest people had enjoyed a higher level of rationality. This already came to the fore in our discussion of Stoic etymology and the role of the first names, or sounds, in particular: the Stoics accepted the traditional view that names had been given to the things by the early Sages living among these first humans.<sup>30</sup> These suppositions were not confined to linguistic speculation, but were also used to justify the study of poetic myth.<sup>31</sup> Early man, so it was often believed, had stood closer to the gods and divine truths had been revealed to him: hence the wisdom stored in ancient traditions.<sup>32</sup> Admittedly, the documented evidence relating to the early Stoic position is slim. The few surviving reports on primitive wisdom seem to be derived from later Stoics.<sup>33</sup> Thus Sextus, *M.* IX 27 (cf. *SVF* II 1077 f.) specifically refers to 'the younger Stoics' as those who defend traditional mythology by appealing to the keener intelligence of the first humans. Nonetheless it is probable

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Guthrie, *In the Beginning: some Greek views on the origins of man and the early state of man* (London 1957), esp. 63 ff. (on the Golden Age); W. Spoerri, *Spät-hellenistische Berichte über Welt, Kultur und Götter* (Basel 1959); T. Cole, *Democritus and the Sources of Greek Anthropology* (Cleveland 1967); B. Gatz, *Weltalter, goldene Zeit und sinnverwandte Vorstellungen* (Hildesheim 1967), esp. 114 ff.

<sup>29</sup> Part of our evidence for this assumption is related to Posidonius; see esp. Seneca, *Ep.* 90, parts of which (5-13; 20-5; 30-2) are printed as Posidonius F 284 E.-K. That the early Stoics subscribed to the view that the earliest men were more intelligent is called into question by Most (1989) 2020 ff., but his argument that such a view would conflict with the Stoic tenet of the progress towards conflagration is unconvincing. In view of the cyclical nature of history, the beginning of each new cycle may also profit from being still near the culminating point.

<sup>30</sup> See *supra*, p. 199 n. 14.

<sup>31</sup> Cf. Cornutus, *Epidrome* ch.35, p.76.2 ff. Lang: 'The ancients have shown themselves no ordinary men, but able to understand the nature of the cosmos and inclined to philosophize about it through signs and veiled indications (διὰ συμβόλων καὶ αἰνιγμάτων).'

<sup>32</sup> It is also found in Plato, who speaks of the 'ancient discourse' (παλαιὸς λόγος); cf. *Phaed.* 70c, *Ti.* 21a, cf. 22b, 26c-d. For the view that Plato had referred to his own doctrines as a παλαιὸς λόγος, see Plot., *Enn.* V 1.8.10. See further the illuminating discussion by Hadot (1987) 22-24, and, in general, A.J. Droge, *Homer or Moses? Early Christian Interpretations of the History of Culture* (Tübingen 1989), who also discusses a great number of pagan thinkers.

<sup>33</sup> See e.g. Seneca, *Ep.* 90.44-6, who argues that in the beginning people, being 'fresh from the Gods', exhibited a higher level of morality.

that this traditional notion had also influenced the first generations of Stoics, including Chrysippus.

There appears to be a positive indication in the *On the Soul* that it is the ancient and primitive character of poetical myth which makes it valuable. At the beginning of his discussion, Chrysippus remarks that people have *from the beginning* come to the view that the mind is in the heart (*PHP* III 1.23 = *SVF* II 886).<sup>34</sup> This observation presents the conclusion from the material he is about to discuss, and this material has, in the preceding sentence, been described as 'the common belief and the things said in accordance with it' (*ibid.* 22). Galen's allegations notwithstanding, Chrysippus is a careful writer. Quite in line with his initial announcement, he first turns to the common belief and next to 'things said', i.e. common expressions and poetical statements.<sup>35</sup> So we may expect him also to exemplify ideas from 'the beginning' and to do so on the basis not only of current linguistic expressions that apparently are old but also of poetical myth. The myth of Athena's birth is a case in point.

How far Chrysippus went in explaining the mythical dress in which the true insights from the remote past were clad is a moot point.<sup>36</sup> The idea of an underlying meaning hidden in a myth entails that this meaning has been devised by its authors. Why, then, the allegorical dress-up? As had been pointed out from Xenophanes onwards, many myths were morally objectionable.<sup>37</sup> The same problem is addressed by the Stoic spokesman at Cic. *ND* II 63 ff. esp. 63 (*SVF* I 166, II 1067) and 70, in what appears to be based on an early Stoic account.<sup>38</sup> In reaction to the charge that many tales

<sup>34</sup> Quoted *supra*, p. 156.

<sup>35</sup> Cf. *infra*, pp. 234 f.

<sup>36</sup> For a modern perspective on the problems involved here cf. W. Burkert, *Structure and History in Greek Mythology and Ritual* (Sather Lectures vol. 47; Berkeley-Los Angeles-London 1979) 3 f.

<sup>37</sup> For Xenophanes' well-known criticism of the ethical value and general world-view of the Homeric poems, see *DK* 21 B 11, 14, 15, 16. Theagenes of Rhegium (fl. c. 525 BCE), who was one of the first to write on Homer, is reported to have reinterpreted the poems in an allegorical way so as to make them more acceptable, see *DK* 8 A 1, 2; cf. Plato, *Resp.* 378d3-7. For the view that Greek allegory did not arise as a defensive reaction (the traditional view) but was first exploited, under the influence of the epic style, for its positive results see J. Tate, 'The Beginnings of Greek Allegory', *CR* 41 (1927) 214-215, 'On the History of Allegorism', *CQ* 28 (1934) 105-114; cf. also Tate in *OCD*<sup>2</sup> s.v. Allegory.

<sup>38</sup> At II 63 we are told that the subject the deeper (i.e. physical) meaning of mythology was treated by Zeno and, more extensively, Cleanthes and

are impious, Balbus not only posits a deeper (physical) meaning but also explains how the true insights involved had gradually acquired their present mythical dress—namely by a process of cultural decline whereby the Divine was, from generation to generation, grasped in a less accurate manner.<sup>39</sup> The poets transmitting the myths were responsible for certain adulterations as well.<sup>40</sup> This implies a primordial stage of purer rationality such as is also presupposed by the Stoic theory of language. Just as etymology tries to reverse the process of increasing confusion, so philosophical interpretation strips the myths of their later accretions in order to uncover the true insights contained in them.<sup>41</sup> So even if we endorse the assumption that the early Stoics indulged in Golden Age speculations, we should not press this idea too far. We should recall that in their writings allegoresis happily co-exists with the ‘emendation’ (ἐπανόρθωσις) of poetry, including Hesiod and Homer (*FDS* 613-20).<sup>42</sup> The very need for often elaborate interpretation shows that poetry is not as clear and cogent as philosophical argument (although in theology verse seems to have been considered the most suitable mode of expression).<sup>43</sup>

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Chrysippus.

<sup>39</sup> For a very similar view see Arist. *Met.* A 8.1074b1 ff.

<sup>40</sup> Cf. Zeno’s view that Homer wrote some things in accordance with opinion (δόξα) and other things in accordance with truth (ἀλήθεια), Dio Chrysostomus, *Or.* 53.4 (*SVF* I 274). On this often misunderstood report see now Long (1992) 59 ff.

<sup>41</sup> But other solutions to the problem of vindicating mythology are encountered as well. Ps.Plut., *Hom.* B 92, p. 44 f. Kindstrand: ‘But if he [scil. Homer] makes clear his thoughts by means of veiled indications and mythical expositions, we should not consider this strange, for this is to be explained by the art of poetry and the mind of these ancient people, namely, that those with a bent for learning would seek and find the truth easier because their minds would be coaxed by poetical delight, and that the uneducated would not scorn the things they cannot understand. For it is true somehow that what is signified through a hidden meaning (ὑπονοίας) is educative, and what is stated in a straightforward manner is rated of little value.’ So Ps.Plutarch gives two grounds: first, the educative value of the poetical form; second, the need for avoiding scorn. The second may also be implied by Chrysippus’ stance at *SVF* II 1008, on which see above n. 6. As to the first, cf. ps. Plut., *Hom.* B 5, p. 8 Kindstrand and De Lacy (1948) 269 f. On ὑπονοία (‘hidden meaning’) see *supra*, n. 10 with text thereto.

<sup>42</sup> Cf. Most (1989) 2026.

<sup>43</sup> See *supra*, n. 6 and text thereto.

### 5.3. *Poetry and Articulation: Evidence from Other Sources*

I now concentrate on the aspect of conceptual articulation involved in Chrysippus' concern with poetry. From the catalogue in Diogenes Laertius (VII 200), we know that he wrote treatises entitled *On Poems* (Περὶ ποιημάτων, one book), *On the Interpretation of Poetry* (Περὶ τοῦ πῶς δεῖ τῶν ποιημάτων ἀκούειν, two books) and *Against the Critics* (Πρὸς τοὺς κριτικούς, one book). Unfortunately, we possess no explicitly attested fragments from these monographs.<sup>44</sup> But the positioning of these titles in the *Catalogue* may tell us something about the relation of poetry to philosophical method.<sup>45</sup> In due course I shall consider Chrysippus' selection of material from the various spheres of non-philosophical λόγος in the light of the *Catalogue*.<sup>46</sup> Suffice it to point out here that the above titles, together with two books *On Proverbs*, are listed as the fifth section of the treatises concerned with, as its heading says, the articulation of ethical<sup>47</sup> concepts (199). Proverbs seem to represent a form of language and experience that is hallowed because it is inherited, in a fossilized form, from the distant past—and their conjunction with poetry here (if the ordering of titles may be used for arguing doctrinal relations) suggests that a similar evaluation has to be assumed for the latter as well.<sup>48</sup> Furthermore, we may note that the first, second

<sup>44</sup> It has been assumed that Chrysippus' Περὶ τοῦ πῶς δεῖ τῶν ποιημάτων ἀκούειν is the main *Vorlage* of Plutarch's Πῶς δεῖ τὸν νέον ποιημάτων ἀκούειν; cf. A. Elter, *De Gnomologiorum Graecorum historia atque origine commentatio*, part. I, Progr. Bonn 1893, 62-4; *RE* IX 2577 (Hense); S. Luria, 'Entstellungen des Klassikertextes bei Stobaios', *RhM* 78 (1929) 99 n.2; Von Arnim, *SVF* vol. III, p.202; Nussbaum (1993) 122. As it is, only Plut., ch.12, p.34b (*SVF* II 100), where Chrysippus permits the extension of points made by poets to similar cases, clearly depends on him; cf. also ch.11, p.31e (*SVF* II 101), concerned with some 'etymologies' by Cleanthes and Chrysippus. For further Stoic material cf. ch.12, p.33c-d (*SVF* I 562, 219).

<sup>45</sup> It has been argued that the classification of topics in the *Catalogue* may be traced back to Chrysippus himself; see *supra*, p. 201 n. 26.

<sup>46</sup> See *infra*, p. 268

<sup>47</sup> Cf. *infra*, p. 268 n. 21.

<sup>48</sup> Cf. Aristotle's view that proverbial wisdom represents what survives of the philosophical ethics of a bygone period: see fr. 13 Rose<sup>3</sup> (= Περὶ φιλοσοφίας Test. 8 Ross; cf. D.L. V 26 for his compilation Παροιμίαι). He also regarded myth, or (ancient) 'theology', as reflecting the philosophy of a previous era, see *Met.* A 8.1074b1-14; *Protrepticus* fr. 8 Ross, second text. Cf. also W. Jaeger, *Aristoteles: Grundlegung einer Geschichte seiner Entwicklung* (Berlin 1923) 130 ff.; cf. also Mansfeld (1985b) 53. But whereas the Stoics made use of this type of material in a fairly systematic manner, Aristotle on the whole found little use for it; see *supra*, p. 220. But his associate Theophrastus, in contrast, took his point of departure more often from proverbs, etymology and pre-

and third sections of the same group of treatises are concerned with definition and conceptual analysis, and that the fourth presents two titles concerned with etymological titles.<sup>49</sup> As we have noticed, definition and etymology are related to common rationality and to the procedure termed 'articulation'.<sup>50</sup> The *Catalogue*, then, indicates that poetry is one of the sources of material for conceptual articulation.<sup>51</sup>

This function of poetry can be illustrated by a number of excerpts from Chrysippus' *On the Virtues*<sup>52</sup> presented by ps.Plutarch, *On Nobility*,<sup>53</sup> chs. 12-3, 16 (pp.234.25-248.12; 254.17-256.13, partly printed as SVF III 350). Here ps. Plutarch criticizes Chrysippus for disparaging εὐγένεια, the virtue of being of good birth, or nobility. Using a metaphor from sculpture, the Stoic represents it as a waste-product of ἰσοτιμία, that is to say as inessential in the light of true equality. He quotes with approval *Il.* B 231 (and perhaps its context also), from Thersites' well-known tirade against king Agamemnon (B 225 ff.), who obviously is εὐγενής (p.242.1 ff. B. = SVF III 350, second text).<sup>54</sup> In addition, he quoted lines from the episode of

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philosophical notions, cf. P. Steinmetz, *Die Physik des Theophrast* (Palingenesia I, ed. R. Stark. Bad Homburg-Berlin-Zürich) 92, 133, 142 n.

<sup>49</sup> Cf. *supra*, p. 197 n. 6.

<sup>50</sup> Cf. *supra*, p. 201.

<sup>51</sup> Cf. ps. Plut. *Hom.* B 92, p. 44 Kindstrand: '... And these things [scil. theories] have been pursued by those versed in philosophy, whose parts are physics and ethics and dialectic. If we see that in all these fields Homer offers the starting-points and the seeds, how is he not worthy of admiration above all others?' Cf. also *ibid.*, B 6 (p.9.48 ff.), where Homer is said to provide those living after him with 'many starting-points and seeds, as it were, for a variety of reasonings (λόγων) and deeds' (the latter term, it seems, indicates ethics). The terms 'starting-points' and 'seeds', which appear in both passages, reflect Stoic language. 'Seeds' is the term employed elsewhere by the Stoics to indicate the role of 'common notions' in methodology (Sen., *Ep.* 120.4, Plut. *CN* 1060A, where, however, the reading is not entirely certain). Chrysippus too uses the verb cognate with ps.Plutarch's word for 'starting-point' (ἀφορμή) in connection with the 'common belief' and 'the things said in accordance with it', namely as the things from which he starts out, *PHP* III 1.22 (SVF II 886), quoted *supra*, p. 156; cf. also *infra*, p. 234.

<sup>52</sup> Listed in the *Catalogue*, D.L. VII 202. For other fragments from this work, see SVF III 49, 295.

<sup>53</sup> Ed. G. Bernardakis, Plutarchus, *Moralia* vol. VII (Leipzig 1886), pp.195-281.

<sup>54</sup> Ps.Plutarch p.242.5 ff. B. counters Chrysippus' explanation by appealing to the original context of the quotation at issue: Chrysippus does not tell us how the story ends, namely with Thersites' punishment at the hands of Odysseus—from which Homer's real view about the incident becomes clear. Most modern students of Homer will be inclined to agree with ps.Plutarch.



Aphrodite's adultery with Ares (*Od.* θ 266-369). This tale had always been embarrassing to Homer's admirers,<sup>55</sup> but Chrysippus argued that Homer had intended to exemplify the behaviour of the well-born (242.9 ff. B.).

Plainly Chrysippus wished to enlist support from Homer for his rejection of the traditional idea of nobility. Ps.Plutarch objects that several quotations from Euripides adduced by Chrysippus (ch.16, p.254.17 ff.)<sup>56</sup> speak in favour of εὐγένεια. Like Galen, he accuses Chrysippus of self-contradiction (ch. 17, p.256.12 f.) with reference to further passages from Euripides (p.256.17 ff.).<sup>57</sup> This leads to the well-worn theme of Chrysippus' habitual inconsistency, illustrated by passages from other treatises (ch.17, p.258.12-8).<sup>58</sup> These concern not εὐγένεια but rather a number of fundamental ethical tenets that are supposed to be familiar to the reader.<sup>59</sup>

But Chrysippus is not inconsistent. The Euripides excerpts recommending εὐγένεια are used in support of the Stoic 'technical' concept, obtained through the process of purging and refining the common conception.<sup>60</sup> This same purpose is served by the criticism of several traditional connotations of εὐγένεια with the aid of Homeric lines.<sup>61</sup> This explains the lines selected by Chrysippus for

<sup>55</sup> Others had recourse to allegorical interpretation to safeguard Homer's respectability: cf. ps.Heracl., *Hom. Quaest.* ch.69; ps.Plut., *Hom.* B 101; Cornutus, *Theol.* ch.19, p.34; ch.19, p.14. Lang. Cf. also Stern (1893) 44.

<sup>56</sup> Cf. Frr. 1066, 739, 231, 232, 242 <sup>2</sup>Nauck (all of which are from Stobaeus' *Florilegium*); p.256.11-3 = *Hecuba* 379-81.

<sup>57</sup> p.256.17-24 = *Heracl.* 297 ff. For p.256.25-258.3 cf. fr. 1067 <sup>2</sup>Nauck; for p.258.4-5 cf. 404 <sup>2</sup>Nauck. for p.258.6-8 cf. cf. fr. 405; for p.258.9-11 cf. Sophocles fr.100 <sup>2</sup>Nauck.

<sup>58</sup> Printed as SVF III 148 by von Arnim, who for no good reason considers it spurious. What follows at pp.258.18-260.2 B. contains Stoic material concerned with the *paradoxa Stoicorum* but is not to be found in SVF.

<sup>59</sup> Cf. esp. ch.12, p.226.6 ff. B. where ps.Plutarch is inveighing against all sorts of other Stoic tenets before turning at p.236.24 to the topic of εὐγένεια.

<sup>60</sup> Note also that ps.Plutarch says that the Stoics applied the term 'εὐγενεῖς' to themselves, ch.17, p.258.22.

<sup>61</sup> Chrysippus' debunking of εὐγενεία in its old sense does not conflict with its status, in scholastic literature, as a (preferred) ἀδιάφορον (SVF III 117, 127). Merely a difference of vantage-point is involved. Εὐγενεία in its crude sense counts as an ἀδιάφορον, which *per definitionem* can be used well or badly, and the latter possibility is vividly illustrated by the fornication of Ares and Aphrodite. For the 'purged' Stoic meaning of the word see also Sen. *Ben.* III 28 (SVF III 349): *eadem omnibus principia eademque origo, nemo altero nobilior, nisi cui rectius ingenium et artibus bonis aptius*. Compare the thesis that only the Sage is εὐγενής, which is one of the 'paradoxes' at Alex. Aphr. *In Arist. Top.* II p. 72 Wallies (SVF III 594). Note that here the Stoics are said to go deliberately beyond the received meaning of this and other terms (a familiar polemical

quotation: some contrast εὐγένεια with possession (pp.254.21 f. 25 ff. 256.5 f. 9 f.), while others associate it with biological descent and apply it to good *character* and to virtue (pp.254.23 f. 256.1 f. 4. 11 ff. 256.9). Apparently, Euripides had revised the traditional notion of εὐγένεια in the light of the νόμος-φύσις distinction. There are some actual, though superficial, points of contact with Stoic doctrine: character is essential to εὐγένεια, whereas wealth, noble birth, or marriage are not.<sup>62</sup> Euripides strips εὐγένεια of its social meaning and restricts it to mental disposition, that is to say, he understands it as noble *character*. This moral connotation of the term, which is found more often in tragedy and elsewhere,<sup>63</sup> entails a critique of the ideology associated with εὐγένεια in its conventional, predominantly social, sense.<sup>64</sup>

Chrysippus advocates a strictly moral sense of εὐγένεια, limiting its reference to virtue, i.e. a particular disposition of the soul. Political implications may be involved.<sup>65</sup> But it should be noted that εὐγένεια in its technical sense—involving a genetic aspect—was central to the Stoic doctrine of moral development.<sup>66</sup> Chrysippus,

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motif, cf. SVF III 595, 596, 597, first text).

<sup>62</sup> Cf. ps.Plutarch's long and tortuous rejoinder, p.258.18 ff. B.

<sup>63</sup> Cf. *Soph.* Ant. 38, *Ph.* 874; Plato, *Rep.* 375a. As is well-known, there are many terms in which both social and moral overtones are involved, e.g. ἐσθλός, κακός; cf. Loenen (1965) 39, 67.

<sup>64</sup> Cf. *Electra* 550, 367 ff., 390; cf. frs. 53, 54 N. Euripides reflects sophistic arguments; cf. Lykophron *ap* ps. Plut. *Nobil.* ch. 18 p.260.3 ff. B. Cf. 11 p.232.19 ff. B. Arist. fr. 91 Rose (= 83 *DK* 4), D.L. II 5, 14. On the ideological role of εὐγενεία see further Loenen (1965), esp. 67 ff. The moral interpretation of εὐγενεία was pursued further by the Cynics; cf. Antisthenes fr. 69 Decleva Caizzi (D.L. VI 10).

<sup>65</sup> For anticipations of the critique of conventional social differences implied here (cf. the reference to ἰσοτιμία) see prev. n.

<sup>66</sup> Cf. ps.Plut., *Hom.* B 144 (p. 76 Kindstrand), where lines from Homer are cited in support of the Stoic dogma that virtue can be learned (cf. SVF III 214, 223) but also εὐγενεία as the good innate predisposition is stressed. Virtue has 'εὐγενεία as starting-point (ἀρχήν), as is also said by Homer: 'It is because you are of such a father that you speak sensible things' (δ 206)'. Cf. Seneca, *Ben.* III 28 on *nobilitas* and *ingenium* (quoted *supra* n. 61); Ar. Did. *ap.* Stob. *Ecl.* II p.107.14 ff. W. (SVF III 366). In ps.Plut., *Hom. loc. cit.* too the genetic aspect is prominent and is associated with divine providence. Cf. also Plut., *CN* 1048D ff. (SVF III 215), where the Stoic idea of a divinely procured predisposition is misconstrued as the notion that God bestows the whole of virtue—which would flatly contradict the Stoic doctrine that virtue is self-chosen (αὐθαίρετον). The early Stoics took a keen interest in the hereditary transmission of *mental* properties, or character, partly because this could be used in support of the corporeality and mortality of the soul; see ps.Galen [= Porphyry], *Ad Gaurum* ch. XIV, pp. 53.28 ff. Kalbfleisch (not in SVF; but cf. SVF II 804-6, with Tieleman [1991] 112 n.28); Tert. *De an.* 5.4, 25.9, Nem. *De nat. hom.* ch.2

then, intends to present εὐγένεια in the Stoic moral sense as rooted in a more common experience, exemplified by Homer (albeit in a negative way) and a famous tragedian. Obviously, this is meant to make his revision of traditional εὐγένεια more convincing and respectable. Furthermore, these fragments from the *On the Virtues* may be taken to exemplify 'articulation' as applied to poetical statements.

#### 5.4. *The On the Soul: Some Aspects of Structure*

According to Galen, Chrysippus 'quoted innumerable [...] verses throughout his book' (*PHP* III 2.3) and 'filled his whole book with lines from Homer, Hesiod, Stesichorus, Empedocles and Orpheus, and in addition to these cited no few lines from tragedy, Tyrtaeus and the other poets' (*ibid.* 4.15). These observations<sup>67</sup> seem to be confirmed by the huge number of poetical quotations copied out from Chrysippus' text. Galen is even able to produce a passage where the Stoic likens himself to a garrulous old woman, or a schoolmaster wishing to bring as many verses as possible under the same heading (*ibid.* 4.16 = *SVF* II 907). As we have seen, Galen, like many anti-Stoic polemicists, adopts a dismissive attitude in regard to Chrysippus' use of poetry.<sup>68</sup>

But Galen also provides useful information about Chrysippus' procedure in an important passage found at *PHP* III 5.21-2. Having discussed a number of Chrysippus' 'etymological' arguments, he continues:

It is therefore time for me to lay aside the passages quoted and to turn to what follows.<sup>69</sup> Here Chrysippus begins quoting the testi-

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p.20.14-17 Morani (*SVF* I Cleanthes 518); cf. Cic. *TD* I 79 (= Panaetius fr.83 van Straaten). Cf. E. Lesky, 'Die Zeugungs- und Vererbungslehren der Antike und ihr Nachwirken', *Ak. Wiss. u. Lit. Mainz, Abh. d. Geistes u. Sozialwiss. Kl.* (1950) 19, 1393 ff. esp. 1396.

<sup>67</sup> Cf. also III 2.10, 2.16.

<sup>68</sup> See e.g. the similar remarks at D.L. VII 180; see further *supra*, pp. 16 f., 134, 138.

<sup>69</sup> That is to say, what follows the argument quoted at III 5.11. Von Arnim's reconstruction of the final part of the etymological section is liable to criticism (cf. *SVF* II 911, p.261, l.31 ff.), but he was surely right to position the etymological section before the 'poetical' one (cf. *SVF* II 884). Fillion-Lahille (1984) 55 ff., by contrast, has all the quotations start after the fragment at III 1.22-5 (*SVF* II 886) simply because Galen presents three poetical quotations from Chrysippus' text at III 2.2 (*SVF* II 890), which lead into a full discussion of the Stoic's appeal to the poets (p.178.1 ff.). Consequently, in Fillion-Lahille's reconstruction the etymological arguments come after all the poetical quotations. But III 5.21-2 prove that in Galen's treatment the order of the two

monies from the poets, interspersing them with a few comments of his own, often as an explanation of the meaning of a quotation, often as a kind of abridgement and summary of the main point. Beginning, then, with a passage from Empedocles, he interprets it, and in the course of this interpretation he embarks on rather important arguments, among which is the argument about speech.

The observation that Chrysippus began quoting poetical lines after he had dealt with common expressions is at variance with other affirmations by Galen that they were found *throughout* the book (see above). Statements of the latter type, however, are likely to be exaggerations and should not be taken at face value. What we have at III 5.21-2, by contrast, does not appear to be coloured by polemical motives and has every appearance of an accurate report.

Chrysippus had designated the type of evidence he turned to first of all as 'the common belief and *what is said in accordance with it*' (PHP 1.22 = SVF II 886), and the latter formula may pertain equally to poetical and to common statements. In the passage which, according to Galen, directly preceded the section marked by verse (*ibid.* 5.11 = SVF II 892), Chrysippus is still concerned with the common belief. On the other hand, literary reference appears to have been more closely connected with 'technical' philosophy than current ideas and common parlance. Here we may note another indication as to the structure of Chrysippus' exposition, viz. III 7.55. Having referred to a group of hexameters adduced by Chrysippus, Galen says:

After the spate of epic verses, Chrysippus discussed the source of speech, reason (λόγος) and nerves and matters related thereto. These are the only things in the book that befit a philosopher. I discussed them, omitting the idle chatter, in the preceding book<sup>70</sup> (transl. De Lacy, slightly modified).

Although this suggests a separate section on the mechanism of speech and the nervous system *following* one concerned with poetic

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sections has been reversed. It is for this reason that Galen, in concluding his critique of Chrysippus' discussion of poets and other thinkers and turning to etymology (III 5.1), says he will 'return to the beginning of the whole account, so that nothing may be overlooked'. Importantly, the beginning of the passage which he then quotes (III 5.2, as part of 5.2-5 = SVF II 891) is also found at III 2.5 (SVF II 890). In the earlier context Galen makes it clear that this passage is from the beginning of Chrysippus' discussion. See also Ch. 2.1.

<sup>70</sup> This pertains to II 5 in particular, where Galen dealt with Chrysippus' speech argument as well as with his remarks about the nervous system (II 8.68-73); see *supra*, p. 51.

testimonies, there need not be any real discrepancy with the information at III 5.21-22 (according to which the speech argument was advanced *in the course of* poetic exegesis, or so it seems). After all, it is not clear whether the epic verses mentioned here conclude the whole section concerned with poetry (if there ever was a distinct section capable of such a description: see below). The main point to note here is the association of poetic verse with philosophical and technical argument somewhere near the end of the argument as a whole.

According to Galen at III 5.21-22, Chrysippus appended pieces of comment and discussion of various lengths to quotations or sets of quotations. Chrysippus provided an exegesis in which he drew generalisations from these quotations, as in the case of Empedocles.<sup>71</sup> Its relation to the argument concerned with spoken language is interesting from a methodological point of view, for it indicates that Chrysippus concluded his entire demonstration with an argument derived from conceptual material provided by this Empedoclean passage. That Chrysippus aligned statements from the poets with those of an early physicist<sup>72</sup> is characteristic of the Stoic use of 'expert' views as compared with Aristotelian dialectic.<sup>73</sup> The Empedoclean passage cited by Chrysippus is no longer extant, or so it would appear.<sup>74</sup> But there is some evidence that Empedocles was also quoted by the Stoics in other contexts.<sup>75</sup>

<sup>71</sup> Fillion-Lahille (1984) 57 may be right that the quotations at II 7.10 and 11 f. are such generalizations; see *supra*, pp. 148 f.

<sup>72</sup> Chrysippus' wrote a treatise entitled *Περὶ τῶν ἀρχαίων φυσιολόγων* (D.L. VII 187 = SVF II 1071). This title may attest to his interest in the earliest philosophers. But not just 'natural philosophers' in our, largely Aristotelian, sense are meant; some fragments show that Chrysippus in this work applied allegorical interpretation to *mythological* texts to lay bare Stoic physical doctrine (*ibid.* and SVF II 748).

<sup>73</sup> See *supra*, pp. 220 f.

<sup>74</sup> In one verbatim fragment, Empedocles localises consciousness in the blood in and around the heart (DK 31 B 105; cf. DK A 84, 86). However, this does not seem to fit Chrysippus' notion of the pneumatic soul and, moreover, III 5.21 f. suggest a relation of the Empedocles passage to Chrysippus' λόγος-argument. So the former may also have pertained to the mechanism of hearing and speaking (cf. DK A 86, 93). Our information, while being rather full with regard to the sense organs and functions as such, gives no clue as to their connection with the 'centre'. Empedocles may not have been clear about this: see Solmsen (1961a) 157 f.

<sup>75</sup> J. Mansfeld, 'Zeno and Aristotle on Mixture', *Mnem.* 36 (1984) 310 compares SVF I 124 with DK 31 B 62. Cf. also Mansfeld (1979) 171 n.131; D. Obbink, 'Hermarchus, *Against Empedocles*', *CQ* 38.2 (1988) 432.

Galen indicates that Chrysippus expanded his explanatory notes into systematic expositions in which he developed important arguments, most notably the argument concerned with spoken language. So his demonstration in the section marked by poetical lines was not characterized by one specific field of reference as in the case of the preceding sections (viz. 1. introduction; 2. common conceptions; 3. common expressions). It is highly unlikely that Galen should have suppressed all information about one or more sections, so we may confidently assume that there was no further section following that mentioned at III 5.21-2. Consequently, Von Arnim's reconstruction cannot be correct in offering a *purely* 'poetical' section (*SVF* II 911, p.261, 4 ff.). Flouting the clues at *PHP* III 5.21-2 and 7.55, he prints the whole piece concerned with spoken language found at *PHP* II 5.15-20 in an etymological context (p. 261.6 ff.).<sup>76</sup> But in fact it seems hardly feasible to restore the final section as a continuous text that approximates the original one.<sup>77</sup> *PHP* III 5.21-2 indicates that a large part of Chrysippus' composition was fairly baroque. Moreover, Galen has left out certain passages mentioned at III 5.21-22 (see above). He nowhere quotes or paraphrases Chrysippus' exegesis of Empedocles. Further it remains a moot question which were the 'rather important' arguments Chrysippus advanced in addition to that concerned with speech.

### 5.5. *Thymos*

Speaking about Chrysippus' quotations from Homer and other poets, Galen informs us that the Stoic took a special interest in the notion of θυμός (III 2.2). This term covers a notoriously wide range of meanings. In Homer, for instance, it denotes not just anger but is—both as referring to a bodily organ and as a metaphorical term—associated with a wide range of psychic functions—volitional, emotional and cognitive. Chrysippus was keen to find here premonitions of his own conception of soul, just as other philosophers read back their own psychology into the epics.<sup>78</sup> But what was, in each case, the motivation behind his quotation of the lines in

<sup>76</sup> See *infra*, p. 269.

<sup>77</sup> Cf. also the relevant section in the reconstruction, *SVF* II 911, p.261. 40 ff. cf. *SVF* II 906.

<sup>78</sup> See e.g. Plato, *Rep.* IV, 441a7-c2, quoted by Galen, *PHP* V 7.75-6. See further Buffière (1956) 256 ff. For Galen's view on Plato's use of Homer, see *supra*, p. 17.

question ? Which aspects of θυμός in Homer and elsewhere were of special concern to him? The task before us here is a complicated one: we have to distinguish between Galen's and Chrysippus' reading of the verses as well as their original purport. Nonetheless, it remains feasible—and rewarding—to trace the Stoic's intention in several cases.<sup>79</sup>

Stoic definitions (*SVF* III 394 ff.) classify θυμός in the sense of anger as a subspecies of 'wrath' (ὀργή), itself subordinate to desire (ἐπιθυμία), one of the four cardinal passions: θυμός is 'incipient wrath (ὀργή).<sup>80</sup> The difference from the Platonic position is obvious. This entails the separation of the θυμοειδές, installed in the second part of the soul, from ἐπιθυμία, installed in the third part. Since Galen considers 'θυμός' solely in terms of the Platonic θυμοειδές, he is silent about this difference between Plato and the Stoics.

The Stoic definitions mentioned are consonant with Chrysippus' usage as found at *PHP* III 1.25 (*SVF* II 886):

The many have ... an inner perception of the passions of the mind happening to them in the region of the chest and especially the place assigned to the heart, as is especially the case in occurrences of grief and fear, in wrath (ὀργῆς) and anger (θυμοῦ) most of all; for impressions (ἐμφάσεις) arise in us as if it were vaporized (ἀναθυμωμένου) from the heart and were pushing out against certain parts and were blowing (ἐμφυσῶντος) into the face and hands (cf. *ibid.* 2.5).

This passage stood right at the beginning of Chrysippus' argument and is part of his exposition of what he calls the common tendency or opinion (κοινή φορά, *ibid.* 1.22). If this opinion agrees with the Stoic definitions I have just mentioned, this is precisely because Chrysippus is intimating that this doctrine is prefigured by a common, albeit indistinct,<sup>81</sup> awareness.<sup>82</sup> Further, θυμός is explained by reference to ἀναθυμίασις, the term also used by the Stoics for the

<sup>79</sup> For a good survey of the uses of θυμός found in Galen's work and *PHP* in particular see Manuli (1988). She does not study the Chrysippean quotations and their original context apart from a few very general observations (pp. 206 f.). The multiplicity of meanings she assumes is fully borne out by my analysis.

<sup>80</sup> See *SVF* III 393 ff. e.g. 395 (= Stob. *Ecl.* II, p.91.10 ff. W.): ... θυμός δὲ ὀργὴ ἐναρχομένη .... ὀργὴ ... ἐστὶν ἐπιθυμία (τοῦ) τιμωρήσασθαι τὸν δοκοῦντα ἡδίκηκεναι παρὰ τὸ προσήκον.

<sup>81</sup> Note the use of ὥσανεί (p.172.24), which lends this specific colouring to the description of what people are aware of; see *supra*, pp. 174 ff.

<sup>82</sup> That Chrysippus in line with later sources saw anger as a subspecies of desire is further confirmed by the fragment at II 7.11 (*SVF* II 887), quoted *supra*, p. 157.

exhalation of the blood in the heart by which the soul is nourished.<sup>83</sup> Passions like anger and the process whereby the soul nourishes itself seem quite different phenomena. Yet the similarity between the physical processes involved, in which the πνεῦμα plays a central part, should be kept in mind in what follows.

Not unjustifiably, Galen compares Chrysippus' description of θυμός with Plato's depiction of anger actuated at *Ti.* 70a7-b8, arguing, in his usual way, that Chrysippus is merely expressing Plato's position.<sup>84</sup> To shore up his charge of self-contradiction a little further, Galen goes on to produce one line from the *Iliad* (Σ 109 f.) and two from tragedy (*Adesp.* frs. 175, 176 <sup>2</sup>Nauck) which had been quoted by the Stoic (*PHP* III 2.1 f. = *SVF* II 890).

Of the three passages concerned (*ibid.* 2.2), the first is a relative clause:

... which far sweeter than dripping honey,  
rises in men's breasts like smoke (Σ 109-10).

Galen speaks as though its antecedent is θυμός or θυμοῦμενον. But it is not. The preceding line in Homer (108) reads:

And bitter anger (χόλος), which drives even the very wise to harshness

The antecedent, then, is χόλος, 'bile', taken metaphorically as 'bitter gall', or 'bitter anger'. That Chrysippus had in fact included l.108 is clear from the parallel quotations at III 2.12 and 7.52, where, in a different polemical context, Galen has no need to suppress this particular line.

The association of θυμός in the sense of anger with χόλος can be paralleled from other Stoic texts. Thus Nemesius, *On the nature of man* ch. 20, p.81.1 f. Morani (*SVF* III 416), presents the following Stoic definition: θυμός δέ ἐστι ζέσις τοῦ περὶ καρδίαν αἵματος ἐξ ἀναθυμιάσεως τῆς χολῆς ἢ ἀναθολώσεως γινομένη· διὸ καὶ χολὴ λέγεται καὶ χόλος. Also note the reference to exhalation here.

At IV 1.10 (*SVF* II 905) we get a glimpse of the original context in which Chrysippus quoted Σ 108-110: Chrysippus takes these Homeric lines to pertain to Plato's θυμοειδές, that is to say, he quotes them to show that Homer localises this part of the soul (or rather

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<sup>83</sup> The occurrence of the root θυμ-' in both words may have provided an etymological pun of the kind more often used by the Stoics in philosophical argument. For the doctrine at issue see *supra*, p. 90 ff.

<sup>84</sup> On this motif see *supra*, pp. 92, 54 f.



the functions corresponding to it) in the heart. To demonstrate this point, he presents other lines that mention *χόλος* (*PHP* III 7.52 = *SVF* II 904).<sup>85</sup> Likewise he shows that Homer locates the two other Platonic parts in the heart.<sup>86</sup> In sum, Chrysippus identified Homeric *χόλος* with *θυμός* in the more narrow sense of 'anger' as a function of the Platonic *θυμοειδές*.

Buffière<sup>87</sup> has correctly stressed the role of *θυμός*<sup>88</sup> in the Stoic understanding of Homeric psychology. It becomes clear from the Homeric epics that *θυμός* was related to *θύω* (smoke, vaporize, breathe),<sup>89</sup> and was originally conceived of as the air within us.<sup>90</sup> The early Stoics understood Homeric *θυμός* in this way and believed it to have anticipated their doctrine of the soul's pneumatic substance and its maintenance through *ἀναθυμίασις*. Moreover, in the epics, *θυμός* is located in the chest and, like the heart, is connected with cognition, the will and the emotions.<sup>91</sup> The brain is not given any psychic functions.

The soul's substance is at issue at ps.Plutarch, *Hom.* 2.127, p. 63 f. Kindstrand (not in *SVF*),<sup>92</sup> preserving what is, no doubt, a piece of

<sup>85</sup> Lines from Hesiod concerned with *χόλος* may be compared (III 2.17).

<sup>86</sup> Note that *θυμός* appears in the quotation showing desire, i.e. the Platonic *ἐπιθυμητικόν* to be in the heart (*ibid.* 51).

<sup>87</sup> Buffière (1956) 260.

<sup>88</sup> On the Homeric concept see Onians (1951) 44 ff. Snell (1975) 19 ff. Jahn (1987). Jahn presents a semantic analysis of *θυμός* and other terms relating to the mind and the soul in Homer. He discerns a corporeal aspect of *θυμός* in a number of contexts (9 ff.). But he also shows that elsewhere it is used metaphorically (i.e. as denoting a psychic phenomenon) and no relation to any particular organ, or place, in the body seems to be involved. In the latter type of context the variations between terms such as *φρένες*, *κράδιη*, *κῆρ*, *ἦτορ* are determined by metrical reasons; cf. Homer's use of epithets (296 ff.).

According to Jahn, Homer may be taken to localise, in an unspecific way, *θυμός* and other psychic entities qua bodily parts in the chest (p.297). However, Jahn is not concerned with the identification of each of the parts in question; cf. p.296, n.92 and text thereto. It should be noted that Homer is entirely consistent insofar as the location of the various parts with regard to each other is concerned; e.g. the *θυμός* is always in the *φρένες* (see further *infra* n. 104). This does suggest a distinction between the organs involved.

<sup>89</sup> The etymological derivation is as old as Plato, see *Crat.* 419e: ἀπὸ τῆς θύσεως καὶ ζέσεως τῆς ψυχῆς.

<sup>90</sup> See Onians (1951) 44, 66, according to whom, originally, 'θυμός is vapour from liquid'; cf. Snell (1975) 19 ff., J.N. Bremmer, *The Early Greek Conception of the Soul* (Princeton 1983) 55 ff., C.P. Caswell, *A Study of Thumos in Early Greek Epic* (Leiden 1990), esp. 51 ff.

<sup>91</sup> Cf. Onians (1951) 47, Jahn (1987) 20 f. and, for a convenient overview, 299 ff.

<sup>92</sup> Cf. Buffière (1956) 260.

early Stoic exegesis of Homeric passages.<sup>93</sup> Although it is rather long, it is worth quoting in full:

The Stoics define the soul itself as a πνεῦμα grown-together (with us)<sup>94</sup> and a perceptive exhalation (ἀναθυμίασιν), rising from the liquids in the body, following Homer who said:

‘As long as (humid) *breath* (ἄντμή) remains in the chest ...’ (I 609-10 = K 89-90),

‘The soul went beneath the earth like smoke (καπνός) ...’ (Ψ 100-1).

In these lines he designates vital πνεῦμα as ‘breath’ since it is humid, but that [πνεῦμα] which is in the process of being quenched, then, he likens to smoke. And he uses also the name ‘πνεῦμα’ itself to designate the soul:

‘Having spoken he breathed (ἔμπνευσε) great force into the leader of men’ (O 262).

and:

‘Breathing out (ἀποπνείων) θυμός’ (Δ 524).

and:

‘And when he regained his breath (i.e. consciousness; ἄμπνυτο), the θυμός also was gathered in the mind’ (X 475),

i.e. the πνεῦμα which had been scattered collected itself. And:

‘And he regained consciousness (ἀμπνόθη); and the breath of Boreas revived him, breathing terribly unto the blown-away θυμός’ (E 697-8).

For the wind from outside, which is of the same nature, by fanning the πνεῦμα of the person who has lost his θυμός, has restored him to life. It should also be taken into account that he uses the term ‘soul’ also for the πνεῦμα from outside, saying:

‘Blowing (ψύξασα)<sup>95</sup> very gently ...’ (Y 440).

For he means to say ‘breathing (πνεύσασα)’.

<sup>93</sup> From a historical point of view, the Stoic exegesis appears to have been fairly accurate inasmuch as the relation of θυμός to breath is concerned; cf. Onians (1951) 44 ff.

<sup>94</sup> Cf. *Sch. ad Il.* Π 856 p. 663.14-6 Bachmann (*SVF* II 778), D.L. VII 156 (*SVF* II 774), Stob., *Ecl.* II p.64.18 ff. W. (*SVF* III 305).

<sup>95</sup> Cf. the etymological pun ψυχή—ψυχρός, e.g. Plut. *SR* ch.41, 1052 F (*SVF* II 806, first text); Philo, *Somn.* I 31 (not in *SVF*). According to these texts, the Stoics explained the generation of the soul by reference to a process of cooling, which occurs when a baby inhales for the first time; see *infra* in text. But the idea of the cooling function of respiration was widespread; see Tieleman (1991) 116 n.45.

According to the Stoic reading, θυμός is identified with ψυχή,<sup>96</sup> which in turn is associated with humid breath, smoke and πνεῦμα. One should also note the role of ἀναθυμίασις ('exhalation') and inhalation, as the two processes whereby the soul nourishes and maintains itself.<sup>97</sup> The phrase 'cooling very gently ...' shows that the Stoics took account of the widespread idea of the cooling effect of inhalation.<sup>98</sup> The connection of breathing, i.e. also cooling, with consciousness in these Homeric lines may perhaps have been related to the Stoic doctrine of the soul's generation through refrigeration (περίψυξις) by the cold air that enters the baby when it first inhales just after birth (*SVF* II 804-6).<sup>99</sup> This doctrine is perfectly consistent with that of the soul's maintainance in the two ways we have just mentioned.<sup>100</sup> At any rate, the above lines show that the epics poet associated life and breathing and that the Stoics recognized here another anticipation of their doctrine that the soul consists of πνεῦμα.<sup>101</sup>

The Homeric epics and other pre-Stoic texts indicate that θυμός was in fact related to ἀναθυμίασις.<sup>102</sup> Ἀναθυμίασις also connects the soul with the heart, for the vapour arises from the warm blood there. Thus, in his *On the Regent Part of the Soul*, Diogenes of Babylon, who follows Chrysippus' argument in many regards, used ἀναθυμίασις to demonstrate the seat of the regent part (II 8.44 = *SVF* III Diog. 30).<sup>103</sup> However, he explicitly refers to the soul's nourishment, which does not seem to be at issue in the Chrysippean passages, III 1.25 and 2.2 (Σ 108-110), dealing with anger (see above). Yet Chrysippus too may have referred to the ἀναθυμίασις in this context as physiological evidence connecting the psychic functions with the heart.

But the soul's pneumatic substance and the idea of ἀναθυμίασις

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<sup>96</sup> As to the difference between these two conceptions according to the epics, Snell (1975) 19 ff. argued that, originally, θυμός is what activates the body and so leaves the body when death occurs (see *infra*, n. 107), whereas the ψυχή is what survives after death, being the actual principle of life. However, Snell has to admit that this is not always true. For a new perspective on the problems involved see Jahn (1987), esp. 19 ff. Cf. also *supra*, n. 88.

<sup>97</sup> See *supra*, p. 80.

<sup>98</sup> Cf. Tieleman (1991) 116 n.45.

<sup>99</sup> See Tieleman (1991) 112 n.28, with further references.

<sup>100</sup> Cf. Tieleman (1991) 121 f.

<sup>101</sup> Cf. *supra*, p. 167.

<sup>102</sup> See Onians (1956) 47.

<sup>103</sup> See *supra*, pp. 79 ff.

are not always at issue in the lines cited by Chrysippus. Compare the second and third quotations at III 2.1:

θυμός lifted him above his wits (φρενῶν) (Adesp. 175 N.)

θυμός leaping from within, forebodes (μαντεύεται) (Adesp. 176 N.)<sup>104</sup>

These lines are produced by Galen together with Σ 109-110 as pertaining to anger (III 2.2). This may be correct. Yet a broader sense ('passion, 'spirit') cannot be precluded. Both lines associate θυμός with rational thought (note 'wits' and 'forebodes'). The second moreover indicates the chest, or heart, as the seat of the mind.

A wider reading on Chrysippus' part seems also presupposed at III 3.25:

With a tawny lion's θυμός in his chest ... (Tyrtaeus fr.10 Diehl).

Here 'spirit' in the sense of a fierce inner disposition is meant, not just anger as a specific passion, as Galen would have it.<sup>105</sup> This observation can be shored up further by other lines featuring a similar sense which is likely to have prompted Chrysippus to quote them (PHP III 2.14-5, p.180.24, 25, 30).

Chrysippus also seems to have associated θυμός with Stoic ὁρμή, i.e. 'impulse' or 'conation' (which concept includes *dispositions*<sup>106</sup>)—an identification which to some extent is justifiable.<sup>107</sup> According to Galen, the Stoic quoted lines showing that

... anger, θυμός, fear, cowardice, boldness (θράσος), courage (θάρσος), endurance (καρτερία), and all such things, are some of them activities (ἐνεργεῖαι), others affections (παθήματα) of the heart (PHP III 2.10).

<sup>104</sup> 2.2, p.176.4 ὁ θυμός αὐτὸν τῶν φρενῶν ἐξῆρ' ἄνω ... p.176.6 ... ὁ θυμός ἐνδοθεν μαντεύεται ... In the first line, 'φρένες' originally denoted the lungs (see Onians [1951] 23 ff.), but Chrysippus seems to take the term as used in this line in the metaphorical sense of 'wits'. In the epics the φρένες often figure as the seat of thought (see Onians [1951] 13; for activity involving emotion, cf. *ibid.* 14). Θυμός is often said to be contained in the φρένες (e.g. Θ 202, I 458), which fits its relation to breath, see *supra*, p. 240. But Chrysippus may have taken this line to agree with his view of passion as a perverse state of the rational soul and have shown by means of other lines the location of θυμός in the breast.

<sup>105</sup> Cf. also the quotations at pp.180.9 f. 12, 20 f.

<sup>106</sup> Stob. *Ecl.* II p.87.10 ff. W. (SVF III 169) with Inwood (1985) 37 ff.

<sup>107</sup> Cf. Snell (1975) 19 '... Thymos ist bei Homer das was die Regungen verursacht ...', 22: 'Im allgemeinen setzt der Thymos den Menschen in Tätigkeit.' On Homeric θυμός as responsible for voluntary action, cf. also Jahn (1987) 21 f. 299 ff.

Apparently Galen has carefully selected psychic phenomena which may be related to the Platonic θυμοειδές.<sup>108</sup> But Chrysippus' quotations include examples of courage<sup>109</sup> and endurance (*PHP* III 2.12-3, 15, pp.178.28, 30; 180.14 f. 32 f.). According to the Stoic view, all these mental states (themselves determined by the soul's tension, τόνος) regulate patterns of action. Since the Stoics explain action and passion with reference to ὁρμή, Galen's testimony may be taken as an indication of Chrysippus' interest in ὁρμή in quoting from the poets. Accordingly, he also defines the regent part by reference to ὁρμή (III 5.31 = *SVF* II 896).<sup>110</sup>

Let us compare the following quotations (III 2.14, p.180.17 f.):

As for me the θυμός in my breast  
arouses (ἐφορμάται) me even more to war and battle (N 73 f.)

And *ibid.*, p.180.23:

Nestor, my heart and manly θυμός urge (ὀτρύνει) me on (K 220)

At K 244 (p.180.25) θυμός and the heart are said to be eager (πρόφρων); and Δ 313 f. 'Old man, if only your knees might follow the θυμός in your breast' (p.180.26 f.) would even seem to permit a reading in line with the Stoic view on the relation of psychic impulse to bodily action.<sup>111</sup>

At this point it is interesting to compare θυμός in the lines from Euripides' *Medea* concluding the famous decision scene (1078-80; III 3.16, p.188.27 f.):

I understand the evil I am going to do,  
but θυμός is master of my considerations.<sup>112</sup>

Although Galen does not explicitly say so, it seems probable that Chrysippus cited these lines in the *On the Soul*.<sup>113</sup> Chrysippus' interpretation has not been preserved, but it is certain that he took θυμός not in the sense of a distinct element in the soul, but rather of a particular (vigorous) state of the soul, or personality, as a whole—one which does not preclude an awareness of 'correct reason', i.e. the most rational course of action. So Gill is certainly right to say

<sup>108</sup> Cf. Manuli (1988) 207.

<sup>109</sup> Cf. *SVF* III 95 (a good, not a virtue); III 287 (a virtue).

<sup>110</sup> See *supra*, pp. 24 n. 68, 201.

<sup>111</sup> See *supra*, pp. 210 f.

<sup>112</sup> καὶ μανθάνω μὲν οἷα δρᾶν μέλλω κακά, / θυμός δὲ κρείττων τῶν ἐμῶν βουλευμάτων.

<sup>113</sup> He also discussed them in the *On the Passions*, cf. *PHP* IV 6.19.

that these lines, though exemplifying a 'conflict between reason and passion', need not be explained along 'Platonic' lines.<sup>114</sup> Not surprisingly, the latter is what Galen is arguing. Taking κρείττων as 'stronger than',<sup>115</sup> he again confines the sense of θυμός to 'anger'.

Chrysippus wished to bring out the aspect of rationality and deliberation in Medea's decision. On his reading, the status of θυμός as an *irrational* force thus becomes ambiguous.<sup>116</sup> His exegesis not only takes θυμός in a broader sense than Galen does but is also more sophisticated from a psychological point of view.

### 5.6. *The Passions and Spoken Language*

Galen says at III 2.18–9 that Chrysippus, for all his acquaintance with poetry, fails to produce those lines which associate purely rational thought with the heart, and he shows that these are actually available by quoting a few of them. He then reverts to his general methodological point that arguments of this type are inappropriate to scientific discourse, referring to Plutarch, who in his (lost) *Homeric Studies* (Ὅμηρικῶν μελετῶν) demonstrated that the poets bear witness to all doctrines (δόγμασιν), that is, including conflicting ones.<sup>117</sup> We need not disbelieve Galen when he says

<sup>114</sup> Gill (1983) 136 ff.

<sup>115</sup> Cf. Gill (1983) 137.

<sup>116</sup> Cf. Gill (1983) 143: 'In underlining this side of Medea, her deliberate rejection and disobedience to reason, Chrysippus points to an aspect of fundamental importance in her portrayal'.

<sup>117</sup> The same point is made by Seneca, *Ep.* 88.5: *nisi forte tibi Homerum philosophum fuisse persuadent, cum his ipsis quibus colligent negent; nam modo Stoicum illum faciunt ... modo Epicureum ... modo Peripateticum ... modo Academicum* (i.e. the four main schools); and Sextus, *M.* I 281: ποιητικοῖς τε μαρτυρίοις χρῶνται οὐχ οἱ γνησίως φιλοσοφούντες (τούτων γὰρ ὁ λόγος αὐτάρκης ἐστι πρὸς πειθῶ) ἀλλ' οἱ τὸν πολλὸν καὶ ἀφοραῖον φενακίζοντες ὄχλον· οὐ γὰρ δυσχερὲς ποιητὰς μαχομένους καὶ εἰς ὅ τι ἂν θέλωσιν ἄδοντας δεῖξαι, ὅτε καὶ οἱ προηγουμένως φιλοσοφούντες πολλὰ μαχομένως λέγουσιν. This point of criticism can be illustrated by authors such as ps. Plutarch, who for instance makes Homer the source of both Stoic ἀπάθεια and Peripatetic μετριοπάθει (*De Hom.* 134–5). Of course, Galen's procedure of finding poetic lines quoted by Chrysippus which contradict him is meant to substantiate his criticism at III 2.18 f. For a similar instance of this criticism as directed against Chrysippus in particular see Cic. *ND* 1.41, where the Epicurean spokesman says: '[Chrysippus] volt Ophei Musaei Hesiodi Homerique fabellas accomodare ad ea quae ipse ... de deis immortalibus dixerat, ut etiam veterrimi poetae ... Stoici fuisse videantur.' Cf. Long (1992) 49 f. who shows that this passage cannot be used in support of the assumption that the Stoics were 'strong' allegorists treating Homer and other poets as proto-Stoics. As Long shows, Cicero adapted a more objective remark in Philodemus, *On piety* col. vi to suit his polemical purposes. In fact Philodemus

that Chrysippus left out lines that refer to purely rational thought. But he was concerned with psychic phenomena of another kind, so his perspective differed from Galen's. We have already pointed to the interest he took in θυμός in its physical aspect. In addition, there are lines that refer to the perception (συναίσθησις) of certain passions<sup>118</sup> in the chest, or heart, and to spoken language<sup>119</sup> as centred there. These patterns of thought are also prominent in other sections of the demonstration, viz. those concerned with common belief and common parlance. Thus *Od.* v 286 (III 2.13, p.180.2) pertains to mental pain (ἄχος) as entering the heart; and ρ 489 (2.15, p.182.4) to sorrow (πένθος) as arising there. Plainly, these lines correspond to the passages concerned with grief (λύπη) from these other sections, where grief is described as both a mental and a physical pain perceived in the heart (III 5.43 f. 7.2-4, 1.25 = *SVF* II 899, 886). Likewise, fear (φόβος) features in all three types of context (III 1.25, 2.14, 5.43). We may conclude that Chrysippus is engaged in developing one and the same argument, viz. that concerned with the perception of certain passions, on the basis of these various fields of reference.

Also exemplified by a number of quotations is the notion of speech coming from the heart. Thus at *PHP* III 7.52 (p.222.16) we have:

But Hera's breast could not contain her anger (χόλον)  
and she *spoke out* (Δ 24).

Chrysippus probably read this line as indicating that angry *utterance* comes from the heart. We may compare everyday expressions which, while being related to anger and other emotions, are likewise meant to exemplify the act of speaking.<sup>120</sup> Galen, however, highlights such expressions or quotations because they could be explained exclusively in terms of passion and the θυμοειδές in particular. He uses them to substantiate his well-worn objection that Chrysippus had produced evidence of a kind which merely confirms Plato's doctrine. The assumption that Chrysippus, for his

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speaks of *things* in the poets mentioned and unlike Cicero does not say that they are made to look like Stoics. His report, then, speaks in favour of the assumption that the Stoics were primarily interested in the poets as *sources* for myths and archaic beliefs: see *supra*, p. 222 n. 11.

<sup>118</sup> Cf. Jahn (1987) 21 f. 299 ff.

<sup>119</sup> Cf. Jahn (1987) 14.

<sup>120</sup> See *supra*, Ch. 4.2.

part, was concerned with speech can be further corroborated by lines such as:

His heart within him howled (ὕλάκτει) ... (v 13, *PHP* III 2.11, p.178.8)<sup>121</sup>

Again we may compare the testimonies from the sphere of common parlance that were concerned with the heart as the centre of speech. Here speech is understood as externalized thought and thought as a dialogue within and with oneself.<sup>122</sup> The same idea recurs in a quotation from Odysseus' well-known *Selbstgespräch* (v 17 f. = *PHP* III 3.2, p.178.10 f., p.184.18 f.):

Striking his breast, he rebuked his heart with words:  
Endure, my heart, you once endured things more shameful,

Homer in a way does anticipate the Stoic view; or rather the Stoic view is a refinement of a widespread conception also reflected by Homer. The notion of thought as speech was traditional, and contributed to the later use of 'λόγος' as embracing both aspects.<sup>123</sup> Moreover, as is also clear from Homer, it involved the view of speech, or words, as breath—so that also the source of language is identified with that of breath.<sup>124</sup> So from a historical point of view the Stoics had some justification for appealing to Homer. Plato's attempt to find a tripartite soul in Homer<sup>125</sup> is far more anachronistic.<sup>126</sup>

<sup>121</sup> One should note ps.Plut., *Hom.* B 130, p. 66.1476 Kindstrand, who, like Galen, says about this line that it exclusively pertains to the passions, whereas the Stoics take it, as well as other lines, to indicate that the ἡγεμονικόν is located in the heart (l.14 f.)

<sup>122</sup> See e.g. III 7 = *SVF* II 903, fourth text; cf. III 2.15; and see *supra*, p. 205.

<sup>123</sup> See Onians (1951) 13 f.

<sup>124</sup> See especially Onians (1951) 67 f. who also notes the survival of this idea in the Stoic arguments concerned with speech. Cf. Buffière (1956) 277; Jahn (1987) 14.

<sup>125</sup> Cf. Buffière (1956) 256 ff. on Homeric views of psychic functions and on the attempts to find Plato's psychology in Homer.

<sup>126</sup> Snell (1975) has been influential in propounding the view that the Homeric *persona* is a set of autonomous entities such as ψυχή, θυμός and νόος; see esp. 19 ff. This view of Homeric psychology obviously runs counter to the Stoic view of a unified psychic organ located in one particular organ, viz. the heart. However, Jahn (1987) has shown that one must distinguish between words denoting organs, or places, in the body and the same words as denoting psychic phenomena, see *supra*, n. 88. It follows from Jahn's conclusions that the fragmentation of the Homeric *persona* has been exaggerated, cf. Mansfeld (1992) 111.



Epic θυμός too fits into the above picture. Words come forth with the breath that is intelligence in man, they are part of it, and the listener receives them into his θυμός, thus adding to his knowledge.<sup>127</sup> Further, θυμός is said to be contained in the φρένες, i.e. originally the lungs (*Il.* Θ 202, I 458).<sup>128</sup> But there are virtually no indications that Chrysippus elaborated this particular aspect of θυμός.<sup>129</sup>

As we have noticed, Galen says that Chrysippus advanced his 'argument concerned with speech' in the section characterized by poetical quotations (III 5.21). In this connection I also note *PHP* III 2.11 (p.178.13 f.):

Thus Agamemnon *heaved repeated sighs* (ἀναστενάχιζ') in his breast, *from deep in his heart*, for he feared for the ships of the Achaeans (K 9 f. *et al.*)

And, if we may believe Galen, Chrysippus' statement 'It is in accordance with this that sighs (οἱ στενάγμοί) too are emitted from there' (*ibid.* 7.45 = *SVF* II 903, fifth text) immediately followed the statement concerned with Odysseus' monologue (or internal dialogue) we have just referred to (*ibid.* 7.42).

Obviously, Chrysippus' explanation of the myth of the birth of the goddess Athena from the head of Zeus (III 8.3-19 = *SVF* II 909; see above, Ch. 5.2) pertains to spoken language as well. Athena, being born from Zeus' head, stands for the intellect externalized, i.e. the spoken word that arises from the inner parts; whereas Metis in Zeus' belly represents thought as inner discourse. Chrysippus thereby unearths from Hesiod's text the entire mechanism of speech on which his most important argument is based.

To recapitulate. The argument concerned with spoken language is put forward in various forms: (1) as implicit in popular conceptions and expressions; (2) as contained in literature; (3) as a technical argument. The picture which emerges is that of successive levels of increasing articulation and corresponding epistemological status of the (related) conceptions under examination. As we saw, this is borne out by the structure of Chrysippus' original exposition, notably the fact that he discusses poetry after common notions and expressions. The argument concerned with spoken

<sup>127</sup> Onians (1951) 67, referring to *Od.* α 361, ψ 355.

<sup>128</sup> See *supra*, n. 104

<sup>129</sup> See, however, *supra*, p. 240.

language in its technical version, which concludes the entire demonstration, is set out after and in close connection with the exegesis of poetical verse. Indeed, as far as statements by Homer, Euripides and other poetic authorities are concerned, there are no cases where Chrysippus notes deviations from the cardiocentric view, as he does in the context of common belief or parlance. It is pertinent to recall here that Chrysippus, in the *On Virtues*, used Homer and Euripides for purging pre-existing connotations of εὐγένεια.

The case of Hesiod's myth of Athena's birth appears different insofar as a degree of inaccuracy seems implied by its reference to the belly instead of the heart, or chest, and to the crown of the head instead of the mouth. But here it was clear that Chrysippus treats Hesiod merely as a source for the myth rather than an individual authority in his own right. As such the myth is more at home in the context of common belief, that is, as testimony of what the men of old believed (III 1.23). This is compatible with Galen's indications as to the structure of Chrysippus' argument (cf. III 7.55-8.1).

That the Stoics derived philosophical, i.e. 'technical', knowledge from non-technical conceptions by means of a procedure called 'articulation' has long been recognized, though predominantly on the basis of late sources.<sup>130</sup> In the next chapters I hope to show that Chrysippus' text sheds important light on certain underappreciated aspects of this method, most notably the role of the concept of πῖθ-  
vón ('the persuasive') as an instrument of Chrysippean dialectic.

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<sup>130</sup> On articulation see also *supra*, p. 201.

## CHAPTER SIX

### THE ARGUMENT FROM THE PASSIONS, CONTINUED

This chapter discusses Chrysippus' argument from the perception of the passions in the heart as presented at *PHP* III 5.41, 43-4, 7.2-4 (*SVF* II 899, 900). We have seen (above, Ch. 2.5) that Chrysippus advances a version of the same argument at the beginning of his demonstration (*PHP* III 1.22 ff. = *SVF* II 886 ff.). This time it features in his account of the 'common belief' (κοινή φορά), that is to say, as a kind of reasoning current among people in general. Importantly, Chrysippus takes this reasoning as his point of departure and, as Galen fails to appreciate, presents it as *inconclusive*. Plainly, the version at *PHP* III 5.41 ff. which followed at some distance in Chrysippus' discussion also pertains to this common belief. However, its epistemological status is not identical with that of the argument at 1.22 ff. From the subtle differences involved much can be learned about Chrysippus' dialectical technique. I shall be arguing that the implications laid down at 5.41 ff. are intended as material and count as 'convincing' (πιθανός) in the Stoic technical sense. They should be studied against the background of the Hellenistic philosophical debate concerned with the 'convincing' in relation to the *opinio communis*. These considerations also apply to the treatment of the common and 'convincing' belief *ibid.* 1.22 ff. But Chrysippus' formulas show that at 5.41 ff. he intends to achieve a higher degree of 'convincingness' and conceptual accuracy than at 1.22 ff. These conclusions prepare the ground for a consideration of Chrysippus' entire demonstration in terms of the πιθανόν.

#### 6.1. *The Argument Described*

At *PHP* III 1.22 ff. (*SVF* II 886; see Chs. 2.3, 2.5) Chrysippus explained the common belief by reference to people's recognition that the passions manifest themselves in the heart, and illustrated this with a vivid description of activated θυμός (III 1.25 = *SVF* II 886; cf. *PHP* III 2.5). However, at *PHP* III 5.41-4 (*SVF* II 899), 7.2-4 (*SVF* II 900) he analyses the same belief in terms of several inferences involving three distinct aspects of passion. These are (a) physical

effects belonging to the body, i.e. the heart, or chest; (b) a feeling characteristic of the passion in question, which is apparently identified with a physical reaction of the corporeal soul; and (c) the passion as such. Roughly speaking, the phenomena of types (a) and (b) induce people to localise (c) the passion as such in the heart, and the assumption that (c) the passion is in the heart, in its turn, engenders the belief that the mind, or regent part, is located there. Chrysippus illustrates this line of reasoning by means of fear (φόβος) and grief (λύπη) in particular.

First we may glance briefly at the fourfold classification of πάθη ('affections') preserved at ps.Plutarch, *De Libidine et Aegritudine* ch.6 (Posid. F 154 E.-K.).<sup>1</sup> Two kinds of πάθη found here are:

(1) 'πάθη of the soul without qualification' (τὰ ψυχικὰ ἀπλῶς), defined as 'those which consist of judgements and beliefs, e.g., desires, fears and angers' (τὰ ἐν κρίσεσι καὶ ὑπολήψεσιν, οἷον ἐπιθυμίας φόβους ὀργάς).

(2) 'πάθη of the soul and manifested in, though not proceeding from, the body' (τὰ δ' οὐ σώματος περὶ σῶμα ψυχικὰ), exemplified by 'tremors, pallors and other changes of appearance related to *fear* or *grief*' (τρόμους καὶ ὀχριάσεις καὶ μεταβολὰς τοῦ εἶδους κατὰ φόβον ἢ λύπην).<sup>2</sup>

Ps. Plutarch ascribes this classification to Posidonius, but this must be a mistake. There are good reasons for believing that it is early Stoic.<sup>3</sup> At any rate, comparison is feasible.<sup>4</sup> Clearly, types (1) and

<sup>1</sup> On this tract see *supra*, p. 171 n. 100.

<sup>2</sup> The other two kinds are: (3) the πάθη of the body without qualification (τὰ σωματικὰ ἀπλῶς), e.g. fever; (4) the πάθη of the body manifested in the soul (τὰ περὶ ψυχὴν σωματικὰ), which include 'lethargies and mental derangements ("melancholies").'

<sup>3</sup> This might be taken to reflect Posidonius' well-known interest in the relation between body and soul. However, it deviates from what is known about Posidonius' theory of the πάθη from reliable sources, while closely conforming to early Stoic doctrine and terminology; cf. esp. the definition of class (1). Reinhardt (1921) 313 argued that Posidonius had intended this classification to be merely provisional and preparatory to a fully psychosomatic account, but this is clearly unsatisfactory. Kidd's recent attempt (*ad* F 154) to establish ascription to Posidonius is, as he himself acknowledges, far from conclusive. It is agreed that ps.Plutarch is unreliable in questions of attribution. Thus at ch.5 a fragment is ascribed to Heracleides of Pontus which scholars have been unable to make sense of, see Sandbach *ad loc.*

<sup>4</sup> Ps.Plutarch considers the traditional question whether the affections, in particular desire and grief, belong to the body or to the soul; he represents this classification as Posidonius' misguided attempt to steer a middle course between the two possible answers to that question. I cannot deal here fully with this classification, which reflects an early Stoic attempt to analyse the

(2) correspond to Chrysippus' (c) and (a) respectively; and the physical effects of passion are called 'πάθη' also by Chrysippus. In class (1) according to ps.Plutarch, grief and pleasure, the other cardinal passions, receive no mention but evidently could be added. The fragment confirms that the concept of the psychic passion as such, i.e. (1) = (a), introduces the aspect of rational thought as the last step in the series of inferences expounded by Chrysippus. Let us compare *PHP* III 2.5 (*SVF* II 890; cf. 5.2 = *SVF* II 891), where Chrysippus makes a smooth inference from πάθη such as desire to the 'reasonings' (διαλογισμούς) in the context of his explanation of the 'common tendency' as based on the perception of the passions.

Chrysippus' distinction between aspects (a), (b) and (c) at III 5.41 ff. may also be taken to condition his procedure at III 1.22 ff. (cf. 5.41 καθάπερ ἐν ἀρχῇ εἶπον). However, this should not blind us to the differences between the two sets of texts. In the later account Chrysippus not only presents a more elaborate inferential schema, but also uses more cogent formulations to argue for the plausibility of the notions in question. This procedure, therefore, goes beyond an appeal to the authority of the majority view. Understandably, then, Galen seems quite successful this time in intimating that Chrysippus considers the inference from the location of the passions to that of the mind conclusive. Once more he adds that the phenomena pointed out by Chrysippus confirm the Platonic tripartite view: grief and fear belong to the spirited part (III 5.40, 42; cf. *Ti.* 70c, quoted at III 1.32). However, here too he is misrepresenting Chrysippus' intention. There can be no doubt that the Stoic is underscoring the plausibility of the argument based on the perception of the passions, and encouraging acceptance of its conclusion. However, he does not claim complete cogency for this reasoning. In fact, this would be inconsistent with his earlier statement that neither (sensory) perception (αἴσθησις) nor empirical evidence (τεκμήρια), from which an inference might be drawn, are available for determining the seat of the regent part (*PHP* III 1.15 = *SVF* II 885). As we have argued,<sup>5</sup> this point of departure rules out a rather common version of the argument from the passions. Chrysippus avoided appealing to the perception of passion in the heart in the straightforward manner typical of this other version,

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relation of body to soul (cf. *SVF* I 518 Cleanthes, esp. the second text, and *infra* n.11, on συμπάθεια).

<sup>5</sup> See *supra*, pp. 147 ff., 177 ff.

precisely because this would result in a *petitio principii* from the viewpoint of the Platonic tripartite conception—that is to say, he was careful not to expose himself to the very criticism which Galen never tires of levelling against him.<sup>6</sup> This motivation on Chrysippus' part, as we shall see, is also reflected by the fragments at *PHP* III 5.41 ff. But first we shall have to describe Chrysippus' argument in some detail because its subtle mode of formulation bears directly on its epistemological status.

If we may rely on Galen, the Chrysippean passages under scrutiny are derived from one and the same context (cf. 5.42, p.208.20 f. 7.1, p.212.6 f.); indeed Galen indicates a continuous sequence, and there is nothing in these fragments to tell against such a reconstruction (cf. *SVF* II 911, p.260.41 ff.). In the fragment at 5.41, Chrysippus seems to be winding up a particular section.<sup>7</sup> That fear and grief are manifest in the heart is given as a general conclusion, with reference to the beginning of his demonstration (see above). From several fragments we can still reconstruct a picture of what came in between. Chrysippus had been discussing common notions and related linguistic evidence pertaining to the passions. Thus the fragment at III 5.37 (*SVF* II 899, first text) deals with certain modes of expression, among which 'having pain in the heart' (καρδίαν ἀλγεῖν), which is said of those concerned for others. Chrysippus attributes this expression to an actual awareness of pain (ἀλγηδόνης) in the heart in connection with grief (λύπη), and it is this point which he is pursuing in the passage to be discussed presently. Further, he also discussed the related term for heartburn (καρδαλγία; *PHP* II 8.3 ff.). That Chrysippus not only referred to fear and grief but also to other passions is indicated by the reference at III 7.3 to joy and daring, as permitting the same type of argument as fear and grief do. The upshot of Chrysippus' review of this conceptual material is that there is a clear realization that passions rise in the heart: thus grief and fear '... manifestly occur in the region of the heart' (ἐμφαίνει περὶ τὴν καρδίαν γινόμενα) (III 7.3).<sup>8</sup> The further inference to the location of the mind is to be found in the fragments at III 5.42 ff., to which I turn now.

<sup>6</sup> See esp. *supra*, p. 187.

<sup>7</sup> Cf. τὸ ὅλον, 'to sum up'. The formula ἐπιφύρων ... εἴπη ('in conclusion he says...'), introducing the quotation, shows that also Galen took it thus. There is no need to distrust him here.

<sup>8</sup> For a parallel formulation with regard to anger and love cf. *PHP* II 7.14 (*SVF* II 887).

Chrysippus begins with fear. First (a) there is the evident (42, p.208.23 ἐκφανής) throbbing of the heart as well as (b) the concentration (p.208.24 συνδρομή) of the soul in the same place. Clearly, these physical effects induce people to locate fear in the heart, or can actually be described as fear manifesting itself in the heart. Moreover, they induce the further inference that the concentration is directed towards the ἡγεμονικόν as the central psychic organ, so this must be located in the heart. Chrysippus brings out clearly that this second step is part of the common opinion; he presents this recognition as subjective and indistinct by twice using ὥς ἂν (43, p.208.25 f., cf. the similar use of ὥσανεῖ at III 1.25, on which see Chs. 2.1, 2.3). But one should note that Chrysippus also recommends the reasoning under discussion by stressing that the physical sensations in the heart are not explicable as mere epiphenomena, or by reference to natural 'sympathy' (p.208.24 f.).

The latter point forms the transition to the discussion of grief (44, p.208.27 ff.): the 'πάθη of grief' are said to be apparent in the heart. Only bodily symptoms are meant, since at p.208.29 f. these 'πάθη' are also referred to twice as distinct from the psychic pain, or pains (ἀλγηδόνων), which may be aligned with the soul's concentration in fear. The assumption is that these symptoms are produced by the physical reaction of the passionate soul, as is also the case in the parallel treatment of θυμός (III 1.25 = SVF II 886). What Chrysippus is alluding to here must be the 'bite' (δῆξις) which, as a bodily effect felt in the heart, is comparable with the heart's palpitation in fear. In the preceding context Chrysippus had been making much of this bite (cf. *PHP* II 8.4 ff. p.158.8 ff. esp. 9 f. ἡ δῆξις ... οἱ δ' ἐς τὴν καρδίαν ἀναφέρουσιν αὐτήν).<sup>9</sup> It occurs in the heart εὐφυῶς (p.208.28), which term indicates the heart as the natural and exclusive locus of the phenomena under discussion. This is also clear from the sequel: no other organs but the heart exhibit the symptoms connected with fear (44, p.208.28 ff.). As in the case of fear, Chrysippus may have taken into account a counter-argument<sup>10</sup> that explained the alterations in the heart as due to

<sup>9</sup> It is invariably connected with grief in later literature as well, see Cic. *TD* IV 15 (*SVF* III 380), III 83; Plut. *Virt. Mor.* ch.9, 449a (*SVF* III 439).

<sup>10</sup> In the Hippocratic tract *On the Sacred Disease* (later 5th. c. BCE), we find this tactic already being used against those who argued from the perception of the passions in the heart (ch. 17.6-10, pp.86-8 Grensemann): see also *supra*, pp. 168 f.

συμπάθεια.<sup>11</sup> And Galen's objection (*PHP* II 7.16 f.) that not only the heart but also other organs display physical alterations in an emotive state<sup>12</sup> boils down to the same thing.

Next, the bodily affections (44, p.208.27 τὰ τῆς λύπης πάθη) are connected with pain (ἀλγυδόνων), i.e. *psychical* pain, or the *feeling* of distress. This characteristic feeling enables us to recognize that it is *grief* that occurs in the heart (5.44, p.208.29-31).<sup>13</sup> So distress, in conjunction with phenomena such as the 'bite', plays an essential part in our self-awareness during the mental state in question. We should note the claim that we have an '*inner* perception' (συναίσθανόμεθα) of distress in our chest, as an experience parallel to the perception of pain in our head or foot when we hurt them (7.4, p.212.15 ff.). The term 'συναίσθησις' is repeated from the parallel account at III 1.25 (*SVF* II 886).<sup>14</sup> According to Hierocles' account of συναίσθησις the soul and the body meet each other's resistance through interaction, and so cause the soul to perceive its own parts and those of the body (*Eth. Stoich.* col. IV 44 ff.).<sup>15</sup> Clearly, in an emotive condition this interaction is particularly intense and manifest.

In the third part of the fragment, or third fragment (III 7.2-4, p.212.10 ff.), the connection between (b) psychical pain and (c) grief is established and psychical pain (and, it would appear by implication, grief too) is located in the ἡγεμονικόν. The conclusion that the latter is in the heart is left unexpressed. Anonymous<sup>16</sup> opponents (10 αὐτοῖς, 11 φῶσι) are referred to: it would be an utterly

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<sup>11</sup> Cf. Alex. Aphr. *De an.* p.100.1 ff. Bruns, who in support of the cardio-centric view uses the argument from συμπάθεια to neutralize references to the effects of damages to the brain. And Galen, too, is alive to the possibility that a disorder in one part of the body may affect another part 'by sympathy'; with Alex. *loc. cit.*, cf. esp. Gal. *PHP* VII 3.36, *Caus. Symp.* I 7: VII 128, 136-7 K.. The concept of συμπάθεια is also prominent in Galen's *De locis affectis*, see e.g. the definitions at VIII pp.137, 13; cf. *ibid.* pp. 30 ff. K., and on συμπάθεια in connection with the question of the seat of the mind see esp. *ibid.* pp.127, 166 ff. K. See also the discussion in Siegel (1968) 360-70; (1970) 187-90. In early Stoic thought, συμπάθεια features both as a physiological and as a cosmological concept, see esp. Sextus, *M.* IX 78 ff. (*SVF* II 1013), Alex. Aphr. *De mixt.* pp. 154.14 ff., 226.6 ff. Bruns (*SVF* II 473, 475), Nemesius, *Nat. Hom.* ch. 2, p.21.6-9 Morani (*SVF* I 518, second text).

<sup>12</sup> See *supra*, p. 53.

<sup>13</sup> Chrysippus also refers to ἀγωνία and ὀδύνη as forms of pain, but these are closely related to λύπη; cf. *SVF* III 412 ff. where they are listed as subspecies of λύπη.

<sup>14</sup> See *supra*, p. 157.

<sup>15</sup> See *supra*, p. 177 f.

<sup>16</sup> Cf. *supra*, p. 141 f.



implausible (ἀτόπως) position if 'they' were to deny that grief is a form of (psychical) pain, or that psychical pain occurs in any other place than the ἡγεμονικόν (p.210.10 ff.). Although this may in itself reflect a contemporary debate, Chrysippus appears to be rebutting two objections which are possible rather than actual. These are to be rejected as conflicting with the general experience which he has just been representing as well-grounded (note οὖν, p.212. 10). In this way, the rebuttal serves to strengthen the common belief. Finally, Chrysippus presents us once more with the inferential scheme which he has been construing (7.4, p.212.14-8): '... we perceive distress *belonging with grief* in the chest, it *not* being the case that grief is *not* a pain or that it occurs in some place *other than* the regent part.' As we shall see, his 'negative' mode of formulation here is crucial for understanding the epistemic status of the whole passage.

## 6.2. *Paradox (ἀτοπία), Persuasiveness (πιθανόν) and Inference*

We have been detailing Chrysippus' procedure at some length in order to bring out the careful way in which he makes explicit, and corroborates, a common train of thought, and we have been doing so on the assumption that his mode of formulation is significant with regard to the nature of his argument. So our next step should be to determine in what respect this may be the case. Our point of departure is the word ἀτοπῶς (III 7.2, p.212.10). As we have already observed, the word οὖν ('therefore') connects the ἀτοπῶς statement with the directly preceding account of the common experience of grief (5.43, p.208.27 ff.). Thus what the opponents deny is two logical connections which are commonly found, or so Chrysippus claims, and this is what makes their view 'implausible' (ἀτοπῶς). This does not make the term 'ἀτοπία', as found here, particularly interesting from a philosophical point of view. But there is some evidence in support of the assumption that it does have a specific philosophical, or dialectical, connotation.

The qualification expressed by the term ἀτοπῶς is important in Peripatetic dialectic,<sup>17</sup> but is much less familiar as a tool of

<sup>17</sup> On the use of ἄτοπος in Aristotle, see Le Blond (1938) 46 f. who, among other things, shows that Aristotle uses it in a sense opposite to εὐλογος. This entails that " ... il ne marque pas une réfutation parfaitement décisive, pas plus qu'*eulogos* ne connote un argument nécessaire, et il admet des degrés." I believe this remark also to be roughly applicable to the usage of the term in

Chrysippus' argumentative technique.<sup>18</sup> He called Plato's talk of doing oneself injustice ἄτοπος, because the common conception of (in)justice necessarily entailed another person as object (Plut. *SR* 1041B = *SVF* III 288).<sup>19</sup> In this and several other passages,<sup>20</sup> Chrysippus uses the term in objecting to deviation from common conceptions, just as he does at *PHP* III 7.2, p.212.10 f. This usage should be considered against the background of the debate between the Stoics and the Academics on the question whether their tenets agree with common conceptions. Here a conspicuous part is played by the concepts of the πιθανόν ('convincing', 'plausible') and its opposite, the ἀπίθανον, or ἄτοπον ('implausible', 'paradoxical'). Thus in his *On the Common Notions against the Stoics*, which reflects the Academic side of this debate,<sup>21</sup> Plutarch says with regard to the Stoic concept of τέλος: συµμεταφέρουσι τὴν ἀτοπίαν τῷ λόγῳ, πορρωτάτω τῶν ἐννοιῶν ἀφισταμένην (*CN* 1071B).<sup>22</sup> Anyone familiar with the treatise from which this statement is derived knows that Plutarch never tires of pointing out that the Stoics' appeal to the common notions is rendered untenable and even ridiculous by their paradoxical doctrines. In other passages he expresses the same thought by reference to the lack of the 'convincing' (πιθανόν) in the Stoic doctrines in the light of common experience, or common language (συνήθεια).<sup>23</sup> In these contexts Plutarch uses 'ἄτοπον', 'not πιθανόν' and 'ἀπίθανον' interchangeably with reference to Stoic doctrines. Furthermore, Sextus Empiricus, who reflects the same debate, likewise labels all those arguments or conclusions which conflict with common notions with

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the debate between the Stoics and their adversaries, namely as bearing a sense close to that of 'incompatible', or 'unreasonable', which is not adequately rendered, as in fact it often is, by the rudely dismissive 'absurd'; cf. e.g. Sextus, *M.* III 115, IX 270; Plut. *Quaest. Conviv.* V, 677D; VI, 691B. See also *LSJ* s.v. ἄτοπος.

<sup>18</sup> But see Epict. *Diss.* III 2.17, where the term appears as a typical instance of logical technical terminology, in connection with books by Chrysippus, Antipater and Archedemus (cf. *SVF* III Ant. 9, Arch. 4)

<sup>19</sup> On the presence of Plato in Chrysippus' writings cf. *supra*, pp. 140 f.

<sup>20</sup> Cf. Plut. *CN* 1061A (*SVF* III 212, second text); cf. Sextus, *M.* VII 228 (*SVF* II 56), 230.

<sup>21</sup> On this treatise see D. Babut, *Plutarque et le Stoïcisme* (Paris 1969) 35-46; Cherniss, *Plutarch's Moralia* vol. XIII (Loeb), Part II, 622-59.

<sup>22</sup> 'The ἀτομία which is furthest removed from the common conceptions is not outdistanced by their reasoning, but carried along with it', tr. Cherniss, modified.

<sup>23</sup> *CN* 1063D, 1070C, 1072F, 1073B-C, 1053B.

the term 'ἀτοπία',<sup>24</sup> and has 'ἀπίθανον' perform the same job in parallel contexts; in fact he uses the two terms interchangeably, i.e. with reference to the same proposition.<sup>25</sup>

The Stoics, for their part, and Chrysippus in particular maintained that the Stoic conceptual apparatus, despite apparent exceptions, was firmly rooted in common rationality. From the catalogue we know that Chrysippus wrote three treatises containing *πιθανά* in support of Stoic doctrine (D.L. VII 199-200):

πιθανὰ λήμματα εἰς τὰ δόγματα πρὸς Φιλομαθὴ γ'  
πιθανὰ εἰς τοὺς ὅρους πρὸς Διοσκουρίδην β',  
πιθανὰ πρὸς τὰς διαιρέσεις καὶ τὰ γένη καὶ τὰ εἶδη καὶ (τὰ) περὶ τῶν  
ἐναντίων α'.

As we have noticed, it is possible to consider Chrysippus' use of the concept of *ἀτοπία* against the same dialectical background as the passages from Plutarch and Sextus. Admittedly, we have no explicit information that Chrysippus related *ἀπίθανον* and *ἀτοπία* the way his Academic opponents did. Yet we may safely assume he did. Further support for this assumption, if needed, may be derived from the following Stoic material. Sextus, *PH* II 251-53 (*FDS* 1201; partly printed as *SVF* II 275), responds to a Stoic attack against the Academic<sup>26</sup> reliance on the *πιθανόν* as a criterion for the rational conduct of life. The original Stoic argument needs to be disentangled from Sextus' critical comments, but its point appears to have been preserved well enough in the sentence *τῇ ἀτοπία—πιθανότητα* (251). It is claimed that the Academic Sceptics, by force of their own principles, must assent precipitately (*προπετῶς*)<sup>27</sup> to a

<sup>24</sup> E.g. *M.* IX 178, 349, both explicitly referring to the common notions (*κοινὰ ἔννοιαι*), IX 235, X 123.

<sup>25</sup> At *M.* IX 432 and III 79 the same conclusion to the same argument is called *ἄτοπον* and *ἀπεμφαῖνον* respectively; the latter term is technical and denotes the *ἀπίθανος φαντασία*: cf. *M.* VII 169; likewise, IX 290 *ἀτοπώτερον* and III 115 *ἀλογώτερον* are parallel (cf. *supra*, n. 17). Cf. Gal. *PHP* VII 7.10-5, where, in a dialectical context, both *ἀτοπία* and (*ἀ*)*πίθανον* function in a very similar way.

<sup>26</sup> The precise identity of those under attack is open to some doubt; cf. *infra*, n. 29.

<sup>27</sup> From the Stoic point of view, the presentations expressed by these conclusions are non-cognitive ('akataleptic'); 'precipitately' is the technical term for the incorrect reaction of assenting to this type of presentation, the correct reaction being suspension of judgement (cf. 253); cf. *supra*, p. 185. On suspension as recommended by Chrysippus in connection with the *sorites* (on which see further in text) see Repici (1993) 261-4.

conclusion which is an *ἀτοπία*, because the argument for it is convincing (διὰ τὴν πιθανότητα). The type of argument at issue here is a sophism (251 τὸ σόφισμα) and the Stoics' intention is best explained as a reply to the Sceptics' claim that Stoic epistemology, in particular the concept of cataleptic presentation, is of no use for exposing conclusions of specious arguments as such (Cic. *Luc.* 92-4). The Stoics, then, turned the tables on them by showing that the same type of argument could be directed against the πιθανόν. From 253 it appears that a typical case of the kind of argument envisaged was the 'little-by-little-argument', or *sorites*.<sup>28</sup>

It cannot be proved conclusively that the author of this rebuttal was Chrysippus (cf. 253 οἱ περὶ τὸν Χρύσιππον δογματικοί); in fact, this is doubtful because the role of the πιθανόν seems to indicate that the argument is later than Carneades, and hence than Chrysippus.<sup>29</sup> At any rate, the prominence of the concepts of ἀτοπία and πιθανόν suggests a relation with the material reviewed above, so that, at any rate, the argument seems to be of relatively early date.<sup>30</sup>

In the Stoic argument the concept expressed by the terms ἀτοπία and ἀτοπῶς is opposed to the concept of πιθανότης (cf. 250 πιθανοίς). That this concept is broader than falsehood (ψεῦδος) is shown by the reference to ἀτοπίας other than falsehood (251). So the Stoics point to arguments whose conclusions, though not demonstrably

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<sup>28</sup> On this type of argument, see J. Barnes, 'Medicine, experience and logic', in Barnes (1982) 24-68. As is well known, it was used by the Sceptics to undermine the concept of cognitive presentation as distinguishable from the non-cognitive one. So it is not surprising that Sextus, in his turn, rebuts the Stoic argument at 251 by borrowing the Stoic defence against the Sceptical *sorites* of withholding, for some time, assent to the propositions put forward by the questioner (253 ὅταν—ἐπάξομεν, *ibid.* πᾶν—λόγου). Likewise Sextus' example of the road and the chasm as standing for the specious argument and its conclusion (252) belonged with the original Stoic defence against the Sceptical *sorites*, see Cic. *Luc.* 94.

<sup>29</sup> Chrysippus took a keen interest in sophisms (*SVF* II 16, 271, 272). Therefore it is tempting to suppose that he also fabricated the accompanying Stoic περιτροπή discussed by Sextus (251-3). The type of formula (οἱ περὶ κτλ.) Sextus uses to refer to those responsible for the argument at 251 f. may indicate either the individual philosopher, or his school, or both. Although its connection with a specific argument here would seem to point to Chrysippus (i.e. the first or the third alternative), we cannot be sure. The school, or line of thought, is mostly in the forefront of Sextus' mind when he uses such formulas. On the present instance see Dubuisson (1976) 136.

<sup>30</sup> If this is correct, the argument could be from the time of Chrysippus' pupils, and in that case it may perhaps have been devised by Antipater.

false, are unconvincing and, in fact, utterly implausible. To assent to something ἄτοπον is to assent to something ἀπίθανον. The upshot is that the πιθανόν cannot be accurately marked off against the ἀπίθανον.<sup>31</sup>

Sextus also complains that the Stoics, who profess to be earnest seekers after truth, should not fabricate malicious arguments leading to ἄτοπα. But as a matter of fact they often did. As one of four main modes of argument used in Stoic theology, Sextus elsewhere lists arguments from the implausible (ἀτόπων) consequences of the denial of the existence of the divine (*M. IX* 60).<sup>32</sup> Since the other modes are familiar from Stoic discussions of other topics (e.g. the appeal to the *consensus omnium*), Sextus' classification appears to cover a more regular procedure. It may be recalled that Chrysippus prescribed undermining the persuasiveness (τὸ πιθανόν) of opposite views as a standard principle of method (Plut., *SR* 1036A = *SVF* II 127, see below, Ch. 7.1) and that he accommodated Academic dialectical techniques (see Ch. 2.2). But it should also be recognized that playing off experts against the majority view, using the latter as the standard of plausibility, and producing paradox from one's opponent's views are procedures which go back to Aristotelian dialectic.<sup>33</sup>

<sup>31</sup> On the relation to the *sorites*, see *supra*, n. 28. The Stoic argument at *PH* II 251 makes sense only if the persons against whom it was directed were positively committed to the πιθανόν as a guide to the rational conduct of life. So if it is directed against Carneades' πιθανόν, this argument provides an indirect testimony, probably early, that Carneades accepted a mild form of commitment, i.e. did not intend his account of the πιθανόν, as recorded at Sextus, *M. VII* 176-189, as a purely dialectical tactic; see *infra*, Ch. 7.2. A form of commitment on his part need not be taken to contradict Carneades' Sceptical outlook: he accepted a weak form of assent: see Cic. *Luc.* 104 (fr.5 Mette) ('approbari'); cf. M. Frede, 'The sceptic's two kinds of assent and the question of the possibility of knowledge', in: R. Rorty *et al.* (eds.), *Philosophy in History* (Cambridge 1984) 255-78; R. Bett, 'Carneades' Distinction between Assent and Approval', *Monist* 73 (1990) 3-20.

<sup>32</sup> Cf. Schofield (1980) 299.

<sup>33</sup> Arist. *SE* 12.172b29 ff., 173a19 ff., *Top.* A 11.104b4 f., *Θ* 4.159a18-20. See also *EE* 1216b26 ff. associating the *communis opinio* with persuasion, with the comments of Schian (1973) 164, who aptly compares the Stoic attitude. Of course, Aristotle is concerned with ἔνδοξα and speaks of ἄδοξον and παράδοξον, and his concept of πιθανόν is central to rhetoric, not dialectic, see *Rhet.* A 1.1355b8-17; A 2.1355b25-34. Yet elements of Aristotele's ἔνδοξον recur in the Stoic πιθανόν; and the concepts of ἄτοπον and εὐλογον, which in Stoic dialectic are closely connected with the πιθανόν (for the εὐλογον see *infra*, pp. 266, 271), are also important in Aristotelian dialectic: see e.g. *SE* A 1.170b14 f., 37 f., *Top.* A 1.109b29 f., 140b32 and 35, 141a5 (ἄτοπον); *Phys.* A 5.188a27, *PA B* 1.647a15, *De divin.* 1.462b23, 26 (εὐλογον); *EN* A 1165b3 f., *GA* A 759a35; *De*

Of course Chrysippus' reference to the concept of ἀτομία at p.212.11 f. is a far cry from the construction of arguments from opponents' views and elaborate *reductio ad absurdum*. Yet the above passages do reveal a specific dialectical background for his procedure. And this background justifies the assumption that the arguments from fear and grief at *PHP* III 5.41 ff. and 7.2 ff. count as πιθανά and that, accordingly, at least some of the implications expounded here are not fully cogent. This assumption is borne out by certain peculiarities of Chrysippus' wording in the argument from grief (III 7.2-4, p.212.10 ff.). Appended to the statement that we perceive 'distress belonging to grief' in the chest there is another (in the genitive absolute) consisting of a pair of negative clauses: οὔτε τῆς λυπῆς οὐκ οὔσης ἀλγηδόνοιο οὔτε ἐν ἐτέρῳ τόπῳ ἢ τῷ ἡγεμονικῷ αὐτῆς [scil. τῆς λυπῆς] γινομένης (p.212.17 f.). In fact, the first contains a double negative, and the phrasing of the second, with one negative and 'other than', amounts to the same thing. Both these clauses parallel not only the content, but also the form in which the rebuttal of the opponents' objection is cast (p.212.10 ἀτόπως ... 11 μὴ φῶσι ... and 13 ἐν ἄλλῳ ... τόπῳ ἢ ...). By contrast, the two sentences stating the inner perception of (a) bodily symptoms, or (b) psychological pain, namely 5.44, p.208.29 ἀλγηδόνων—31 μάλιστα, which directly precedes p.212.10 ἀτόπως—13 ἡγεμονικῷ, and 7.4, p.212.16 οὕτως—18 γινομένης are both put in the affirmative manner.

The 'negative' sentences represent a quite indirect mode of formulation, which impression is enhanced by the fact that Chrysippus postpones stating the conclusion of the train of reasoning he is so fully setting out in all other respects. The only time when, in this context, Chrysippus explicitly does state the conclusion, viz. at

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*insomn.* 1.462b9; *Pol.* A 1.1273b3 (ἄτοπον and εὐλογον); on εὐλογον see further Le Blond (1938) *passim*, esp. the overview of occurrences 54 ff. In fact there is some evidence that Aristotle's dialectic as expounded in the *Topics* was later interpreted in terms of the πιθανόν: see the account of Aristotle's divisions of philosophy at D.L. IV 28, where also the connection between the πιθανόν and rhetoric is explicitly retained. This passage provides a glimpse of the reception of Aristotle's dialectic among Hellenistic thinkers. On Stoic dialectic and its relation to rhetoric see Long-Sedley (1987) vol.1, 188 ff. On Stoic rhetoric see also C. Atherton, 'Hand over Fist: The Failure of Stoic Rhetoric', *CQ* 38.2 (1988) 392 ff. Atherton's main concern is with stylistic rather than epistemological aspects. But cf. 426 n.26, where she confines the concept of πιθανόν to what is 'reasonable' (εὐλογον) and relates it to the emotions. My conclusions point in a different direction, see esp. Ch. 7.1 below.

5.43, p. 208.26 ὥς—αὐτήν, he indicates that the notion entertained by people in general is indistinct (see above).<sup>34</sup>

There may be something more to these peculiarities than just a cumbersome style of writing. We should compare Chrysippus' mode of formulation with the so-called negated conjunction <Not both ( $p$  and  $not-q$ )>. Chrysippus appears to have restricted the <If  $p$ ,  $q$ > formulation to cases of logically necessary implication and to have preferred the negated conjunction as indicating a weaker or vaguer relation.<sup>35</sup> Moreover, as D. Sedley has plausibly argued, the negated conjunction was used as the proper form of expression of 'convincing (in the sense of fallible) conditionals. This class may in fact have been the subject of a separate treatise entitled *πιθανά συνημμένα* (D.L. VII 194).<sup>36</sup> The negated conjunction, then, was

<sup>34</sup> It is quite improbable that a definite, cogently worded, conclusion has been suppressed by Galen, who would not have missed such an excellent opportunity to illustrate his frequent claim that Chrysippus illegitimately infers the location of the mind from that of the passions (i.e. Chrysippus' 'unproven assumption': see *supra*, p. 11).

<sup>35</sup> See Frede (1974b) 80-93; Sedley (1982) 246-56, esp. 254 on Cic. *Fat.* 14-6, recording Chrysippus' advice on how to lay down astrological laws. The criterion of implication in this particular field necessarily consists of regularly observed conjunctions, not entailments, and there is consequently the possibility of error. Chrysippus therefore advocates the negated conjunction as the preferable formulation for such cases. For negated conjunctions see also *SVF* III 528, II 665, with Sedley (1982) 253 n.37. On the Stoic tendency to formulate arguments according to formal schemata cf. Frede (1974b) 4 ff.

<sup>36</sup> Sedley (1982) 253; additional evidence is discussed in Sedley (1984), 'The Negated Conjunction in Stoicism', *Elenchos* 5 (1984) 311-16. Sedley's view of the *πιθανά συνημμένα* as conditionals has come under attack: see Barnes (1985), who points to the criticism in some late sources of the Stoic refusal to see negated conjunctions as conditionals, i.e. *συνημμένα* (455 f.). This indeed presents a difficulty for Sedley's thesis but does not affect the textual evidence he adduces, which shows that the negated conjunction was the preferred mode of expression for plausible propositions. To begin with, Chrysippus at Cic. *Fat.* 15 (see previous n.) recommends negated conjunctions for stating certain Chaldean predictions. Barnes (p.458) says this is because he considers them false. Cicero, however, says that Chrysippus *hopes* that they are false. But since they pertain to the future nobody can know for sure. His point, then, is that they are fallible not false. Secondly, at *PHerc.* 307 (adduced by Sedley [1984]), probably from Chrysippus' *Logical Investigations* (*Λογικά Ζητήματα*), negated conjunctions are used in connection with the expression 'proceeding *πιθανῶς*'. Barnes (p. 461) objects that 'it is our progress which is *πιθανόν* not what we state as we progress': but the point of this distinction eludes me. Further, Barnes (e.g. p.456) stresses that the epistemic value of an inference does not depend on its form, but this is not what Sedley claims. As it was, the linguistic form of arguments notoriously mattered to the Stoics, see previous note and Barnes on p. 455. Moreover, Barnes too sees the negated conjunction as the weaker form to express an inference (in connection with the *sōrites*, p. 457). Finally, the epistemic value of the negatively phrased inferences drawn

used to express a 'convincing' implication, which one may be justified in asserting even while recognizing that it is not beyond doubt.

Is the same epistemological status implied by Chrysippus' formulations at *PHP* III 7.4? Strictly, the period at p.212.16 οὕτως—18 γινομένης does not express a negated conjunction: p.212.17 οὔτε—18 γινομένης does not represent the consequent of 16 οὕτως—17 γινομένης. Instead we have three clauses, all of which may be viewed as premises of an argument whose conclusion is left implicit. However, the Stoics applied the negative type of formulation more widely, to indicate, it appears, the same epistemological status as in the case of the negated conjunction. Likewise we find the term εὐλογον ('reasonable', 'probable')<sup>37</sup> qualifying the conclusion of a chain of negatively phrased inferences in one of his versions of the speech argument (II 5.15-6, see below, Ch. 7.1). This, then, may indeed have served as Chrysippus' preferred mode for expressing material implications.

At this point a further piece of evidence may be adduced: Sextus, *M.* IX 139 presents an anti-Stoic argument which probably derives from Carneades, and which precisely for this reason can be taken to imitate a Stoic logical form. Carneades argues that it will be 'ἀπίθανον' to violate the conclusion of one of the implications of his argument. The implication in question is laid down in the form of a double negation very similar to Chrysippus' formulations at *PHP* III 7.2-4. It is easy to see that Carneades' move is parallel to that of Chrysippus.

We may conclude that Chrysippus treats the inference from the passions in their physical aspect to the ruling part as a material implication, suitable for an argument with the status of a πιθανόν. The perception in the heart of (a) the physical impact of the passion and (b) the concomitant feeling may count as obviously true; however, the implications expressed by the 'negative' clauses, namely that from (b) the feeling of pain to (c) the passions and that from (c) the passion to the ἡγεμονικόν are fallible.<sup>38</sup> This intention

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by Chrysippus at *PHP* III 7.4 (see in text) as well as II 5.15-6 (see *infra*, p. 271) is consistent with Sedley's interpretation; in other words, it is confirmed by these fragments from the *On the soul* in the light of their restored context.

<sup>37</sup> On its relation to the πιθανόν see e.g. Philod., *Sign.* col. VII 26-38, on which see further *infra*, p. 266.

<sup>38</sup> Cf. Sedley (1982) 255. If a truth can be known for certain (καταληπτόν), then so can all further truths which logically follow from it. But the same



is wholly misconstrued in Galen's presentation (III 7.5 ff.). Whereas he is willing to grant the former implication as merely tautologous, he flatly rejects the latter as yet another instance of Chrysippus' 'unproven assumptions'. However, the former objection blurs a distinction which, as we have noticed, makes perfect sense within the framework of Stoic psychology, and the latter objection is invalid in the light of Chrysippus' 'negative' mode of formulation.

Although Chrysippus lays down a material implication, he also strives to make explicit all the inferences involved and to reinforce the perception of the passions in the heart by referring to its obviousness. This suggests that, from the aspect of conceptual articulation, the argument advanced here represents a stage somewhere halfway between e.g. the reference to the majority view found at the outset of the demonstration on the one hand, and the true and valid argument from spoken language (*PHP* II 5.18-20; see below, Ch. 7.1), on the other.

In recent years the Stoic doctrine of signs and its relation to the concept of proof have been discussed with great intensity. This debate has been focused on Sextus, Philodemus and several other late sources, all of whom pose special problems as to the historical reliability of the doctrines they record and criticize; that is to say, the question arises as to how far these tenets are undilutedly Stoic, or early Stoic. It may thus be an important opportunity to consider Chrysippus' procedure in the *On the Soul* from this perspective. Here, understandably, Chrysippus does not present us with a formal statement of his method of inference from signs, but his intention to take it into account is certainly indicated by the passage concerned with αἰσθησις, τεκμήρια and inference (*PHP* III 1.15 = *SVF* II 885). So it seems reasonable to try and detect his concern with such a method and related epistemological aspects in the other fragments. This concerns first and foremost the sphere of common rationality, which is characterized, according to the Stoic view, by sign inference (Sextus, *M.* VIII 275 = *SVF* II 223). Accordingly, when starting from the common notion relevant to his argument (*PHP* III 1.22, p.172.15 f. = *SVF* II 886), Chrysippus focuses on the inferences which connect it with others and thus provides himself with the material for further elaboration.

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need not apply to truths which are no more than materially implied by it.

## CHAPTER SEVEN

### CHRYSIPPUS' DEMONSTRATION: A GENERAL EVALUATION<sup>1</sup>

It has become clear that the nature of Chrysippus' second argument concerned with the perception of the passions in the heart (*PHP* III 5.41 ff.) should be considered against a specific dialectical background featuring the concept of the *πιθανόν* and the appeal to the *opinio communis*. In the following pages, I shall use this insight to consider Chrysippus' entire demonstration in terms of the *πιθανόν*. This approach, I believe, helps to explain his procedure by means of levels of increasing clarity, or diminishing indistinctness, represented by various spheres of non-philosophical thought (common beliefs, popular parlance, and poetry), and culminating in accurate and stable knowledge, expressed by the syllogism concerned with spoken language (*PHP* II 5.18-20 = *SVF* II 894).<sup>2</sup> Thus it provides the key to understanding Chrysippus' argument as a unified whole. No doubt Chrysippus' method in the first book *On the Soul* reflects certain circumstances specific to the problem under discussion, notably the widespread disagreement on the seat of the intellect and the role of scientific theories. But it also illustrates Stoic doctrines and procedures which were applied on a wider scale, as is seen from comparison with Stoic material from other sources. But the extant parts of the *On the Soul* not only confirm, supplement or qualify later material; they also add to our evidence an important dialectical aspect which cannot be studied on the basis of most of these other sources.

#### 7.1. *Persuasive Arguments (πιθανά) in the On the Soul*

In a fragment from the *On Lives*, preserved at Plutarch, *SR* 1036E (*SVF* III 271), Chrysippus discusses the exposition not only of opposite arguments, but also of 'the *πιθανά* on both sides'. He is mainly

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<sup>1</sup> What I have to say, in the following pages, on Chrysippus' dialectic should be compared in particular with Mansfeld (1990a); Ioppolo (1986), esp. 89-120, 187-90, 200-3. With regard to the different types of presentation (*φαντασία*) recognized by the Stoics, see Frede esp. (1983).

<sup>2</sup> See esp. *supra*, Chs. 5.4, 5.6.

concerned with the hazards connected with the dialectical technique of arguing on both sides of a question.<sup>3</sup> When one argues too strongly in favour of the opposite case one's young and inexperienced students may lose hold of their correct cognitions (καταλήψεις). The opposite arguments and opposite *πιθανά* should therefore be introduced cautiously, that is, at the right moment, briefly, and together with their refutation (cf. 1036D = SVF II 127). This accords very well with Chrysippus' actual procedure in the *On the Soul*. There he begins with an almost completely anonymous, though full, overview of tenets; in his subsequent discussion he omits to expound the arguments for any of these opposite views;<sup>4</sup> and he deals an occasional blow to some of his opponents only.<sup>5</sup> But the fragment of the *On Lives* also alludes to another aspect; Chrysippus seems to imply that in dialectical debate the *πιθανά* may also be used for constructive purposes, i.e. they may serve to induce, or strengthen, one's grasp of a true presentation. At any rate, the fact that an argument is 'merely' convincing does not make it altogether unfit for philosophical discussion. Chrysippus' argument from the passions at *PHP* III 5.41-4, 7.2-4 is a case in point (see Ch. 6).

The part played by the *πιθανόν* in early Stoic methodology has on the whole been underestimated, probably because it was too exclusively associated with Carneadean Scepticism, or was assumed to characterize a class of specious, i.e. false, propositions or presentations. But Sedley has put the early Stoic, and Chrysippean, evidence concerning the *πιθανόν* in a more correct perspective.<sup>6</sup>

The 'convincing' is formally defined as 'that which induces us to assent' (D.L. VII 75), but in fact three senses are distinguished (Sextus, *M.* VII 174-5):<sup>7</sup> (a) 'that which is true and appears true'; i.e.

<sup>3</sup> Cf. *supra*, Ch. 2.2 and the analysis of this passage by Repici (1993) 264 f.

<sup>4</sup> Galen reports on this feature, which infuriates him: *PHP* III 1.26 ff., with *supra*, pp. 155 f. He makes the same complaint with regard to Chrysippus' procedure in the *On the passions*, see IV 1.15, 2.1, 3.6. Cf. Chrysippus *ap.* Plut., *SR* 1036A: 'the persuasiveness (τὸ πιθανόν) of the opposite arguments is to be undermined, as the right opportunity arises to mention (μνησθῆναι) them, just as in the court-room.' Cf. *SR* 1036D τοὺς ἐναντίους ὑποδεικτέον λόγους. On this feature of Chrysippus' method of refutation (ἐλεγχος) see now also Repici (1993), esp. 266 ff. (on the Galenic testimonies).

<sup>5</sup> Apart from *PHP* III 7.2 see II 5.69-70 (SVF II 898), III 8.3 ff. (SVF II 908); in all these cases Chrysippus omits to give the names of his adversaries.

<sup>6</sup> Sedley (1982) 246-256.

<sup>7</sup> This is from Carneades' account of the *πιθανόν*, and precisely for that reason it is likely to conform with the Stoic position: cf. *infra*, p. 277.

πιθανόν in the sense of obvious, or cogent; (b) 'that which is false but appears true'; e.g. in the way in which false argument may be called convincing;<sup>8</sup> (c) 'that which is common to both truth and falsity'. This last usage, which leaves it open whether the thing so described is true or false, may be compared with Philodemus, *Sign.* VII.26-38, where the Stoic Dionysius connects the πιθανόν with the εὔλογον ('probable', 'reasonable'), which is elsewhere explained as 'that which has more chances of being true than false' (D.L. VII 76).<sup>9</sup> It follows that the thing (i.e. πιθανόν in question) described by reference to it may be true or false, but as a general rule is true. This sense of 'πιθανόν', then, entails fallibility, as is illustrated by the well known Stoic example of the class of convincing propositions, 'If someone bore something, she is the mother of that thing' (D.L. VII 75), which is falsified by the bird who is not the mother of her egg. But as Sedley aptly points out, we should not be misled by the fact that most such examples are false πιθανά, because '... the easiest way to exemplify a fallible proposition is with an actually falsifiable one. But the essential characteristic of a πιθανόν proposition is that there could be exceptions—not that there are.'<sup>10</sup>

The Stoics gave the πιθανόν an important role. Acknowledging that certainty is not always attainable, they considered it acceptable to rely on a 'merely' convincing belief in cases where no cognition was possible. The everyday examples used to illustrate this position<sup>11</sup> should not lead us to confine it to the practical conduct of

<sup>8</sup> Plut. *SR* 1055F; D.L. VII 75, 78; 89 (*SVF* III 228); Gal. *PHP* V 5.19 (*SVF* III 229a).

<sup>9</sup> On the concept of εὔλογον see also the well-known anecdote about Sphaerus and king Ptolemy, D.L. VII 177 (*SVF* I 625). On the concept according to Chrysippus cf. Ioppolo (1986) 191 f., who stresses the fact that it indicates something that may not be true, arguing that it is acceptable in the sphere of human action but not in the sphere of theory. However we should also acknowledge the use made of the concept in dialectical, or philosophical, contexts; cf. Ioppolo's views on the Stoic πιθανόν referred to *infra*, n. 70.

<sup>10</sup> Sedley (1982) 252 n.32.

<sup>11</sup> Cf. Cic. *Luc.* II 99 f. and Philod. *Sign.* VII.26 ff., for the Stoic example of the sea-traveller's optimism, cf. Sedley (1982) 249 f. The traveller simply cannot *know* that his voyage will not end in shipwreck, but he behaves in a perfectly reasonable way if he goes on board after ascertaining that circumstances such as the weather and the competence of the crew are good. This renders convincing the presentation expressible as 'I shall arrive safely at my destination'. We should take due notice of the aspect of testing the presentation in question by means of other related presentations, in this case those pertaining to the circumstances under which the voyage is to take place; see

life. The epistemological presuppositions underlying these examples pertain to rational thought as a whole, including more specialized, or 'technical', argument and inquiry; see Chrys. *ap.* Plut., SR 1036E (see above) and the book-titles at D.L. VII 199 f. (see Ch. 6.2).

There is another point to be made. We need not assume, on the basis of our documented evidence, that the Stoics' concern with the *πιθανόν* was confined to those cases where truths are not logically demonstrable and where, accordingly, they had to satisfy themselves with the balance of plausibilities.<sup>12</sup> This would confine convincing arguments to the role of supplementary grounds for positions established otherwise, or would relegate them to philosophically peripheral matters, because they would be unfit to help support the system in its main lines. However, this supposition distorts the Stoic position. To be sure, arguments having a 'supplementary' status were used by the Stoics; Chrysippus' argument from the passions (*PHP* III 5.41 ff.) survives as an example of such a supplementary device (see Ch. 6.2). But this is only part of the truth. The way in which in the passage from the *On Lives* presented at Plut. SR 1036E, Chrysippus connects the *πιθανά* with cognition (*κατάληψις*) points to another function as well—namely that of stating *a truth* which has not yet been established, or is not yet presented in this way, but for which the *πιθανά* prepare the ground by making the mind receptive to it. This assumption receives support, once again, from the Chrysippean book-titles featuring *πιθανά* in support of school doctrines and definitions.<sup>13</sup> These can hardly have been concerned with secondary doctrines only. That they did not pertain to 'supplementary' grounds for primary doctrines will be confirmed presently.

I argue that Chrysippus' procedure in the preserved sections of the *On the Soul* should be interpreted in terms of the *πιθανόν* in the 'preparatory' sense (as provisionally we may call it) which we have just explained. First let us recapitulate the main subjects, or fields of reference, which Chrysippus is concerned with: common notions;<sup>14</sup> common parlance (i.e. 'etymologies'); a definition of the regent part;<sup>15</sup> further, lines from Homer, Hesiod and other poets;

*infra*, pp. 283 f.

<sup>12</sup> As is suggested by Sedley (1982) 252.

<sup>13</sup> See *supra*, p. 257.

<sup>14</sup> Though not κοινὰ ἐννοῦναι in the technical sense: see *supra*, p. 166.

<sup>15</sup> See *supra*, p. 201.

and, finally, statements by authorities such as Zeno and Empedocles. As I have stressed, these spheres of rationality represent increasing levels of conceptual articulation—presumably in the above order.<sup>16</sup> All of them are non-philosophical. (Zeno's statement is merely a *bon mot* from an 'etymological' context,<sup>17</sup> and the Empedocles passage appears to have been closely associated with poetic verse<sup>18</sup>).

We may now compare the titles in the Catalogue arranged under the heading *Of the Ethical Reason* [λόγος] *Concerning the Articulation of Ethical Concepts* (D.L. VII 199-200).<sup>19</sup> Although we cannot know the precise content of each treatise and some titles are less informative than others, it is clear that in this section all the spheres of rationality referred to in the *On the Soul* are present. Arguably, the catalogue represents Chrysippus' own arrangement of philosophical topics.<sup>20</sup> At any rate, the arrangement in this section cannot be random, or disturbed; all the titles pertain to non-philosophical λόγος as material for philosophical clarification and ordering.<sup>21</sup> Importantly, this is the very section which contains the titles mentioning 'πιθανά' or 'πιθανά λήμματα' we have been referring to. One of these indicates a relation of these πιθανά to school doctrine (199), and two others with definitions and *diaereses* (200).<sup>22</sup> Especially the latter two titles nicely show that, far from being 'supplementary' material, the πιθανά in question are to be understood in terms of the 'articulation' mentioned in the heading and implied by the other titles. The works concerned with πιθανά more probably than not drew on the subject matter indicated by the other titles in the same section.

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<sup>16</sup> This appeal to (1) people in general, (2) poetry and (3) intelligent thinkers of the past is found in later literature also: see Cic. *TD* I 30-2; *Div.* I 84; Sextus, *M* IX 63, with Boyancé (1971) 454; cf. ps. Plut. *Hom.* B, chs. 117, 5. Chrysippus' work may have contributed to the spread of this procedure, which can be traced back to the Aristotelian *Topics* (esp. 10,104a1ff.).

<sup>17</sup> See *supra*, p. 294.

<sup>18</sup> On Chrysippus' reference to Empedocles, see further *supra*, p. 235.

<sup>19</sup> On the title contained in this section cf. also Brunschwig (1991) 90 f.

<sup>20</sup> See *supra* p. 201 n. 26.

<sup>21</sup> This procedure is also indicated by the title of the subsequent section: *Ethics Concerning Common Reason and the Techniques* (τέχναι) *AND VIRTUES DERIVING FROM IT* (201). Apparently, the titles assembled here represent a more advanced stage of philosophical elaboration. On the relation of the headings at 199 and 201 to ethics, see Long (1978) 118.

<sup>22</sup> See *supra*, p. 257.

In the *On the Soul* we have, first, the relation between the two accounts (*PHP* III 1.22 ff., 5.41 ff.) of the common reasoning concerned with the perception of the passions in the heart. As I have argued, the doctrine of the *πιθανόν* is relevant to the account at *PHP* III 5.41 ff. In Chrysippus' discussion, it *followed* that at *PHP* III 1.22 ff. at some distance,<sup>23</sup> and represents a higher degree of conceptual accuracy, though not achieving complete certitude.

In addition, we may examine Chrysippus' frequent references to spoken language from the perspective of articulation and the *πιθανόν*. Here certainty is reached, namely in Chrysippus' syllogism at *PHP* II 5.18-20, whose propositions are true and evident.<sup>24</sup> It is this syllogism, then, which decides the conflict of tenets expounded at *PHP* III 1.12-5 (*SVF* II 885) in favour of the heart; it marks the completion of Chrysippus' procedure of transforming a non-cognitive (*ἀκατάληπτος*) presentation, introduced at the beginning of his discussion (*PHP* III 1.22 ff.), into a cognitive (*καταληπτική*) one. We must note that the propositions of this syllogism are also characterized as '*πιθανόν*' (*PHP* II 5.20, p.130.33).<sup>25</sup>

Galen informs us that 'the argument concerned with speech' (*ὁ περὶ φωνῆς* scil. *λόγος*), among a few others,<sup>26</sup> was advanced in the course of an exegesis of certain verses from Empedocles, which, in turn, was part of a large section characterized by poetical quotations (III 5.21-2).<sup>27</sup> Chrysippus believed poetry to represent a more accurate kind of rationality than common parlance and for this reason had the poetical quotations follow the 'etymological' section.<sup>28</sup>

<sup>23</sup> See *supra*, Ch.6.1.

<sup>24</sup> See *supra*, p. 143.

<sup>25</sup> Cf. Diogenes of Babylon's parallel argument at *PHP* III 5.9-13, p.130.7 ff. (*SVF* III Diog. 29): 1.10 *φανερῶς*, *ἐκφανής*, 1.12 *κάκεινο ἀληθές*, 1.15 *πιθανόν*.

<sup>26</sup> It seems impossible to determine which arguments Galen is referring to.

<sup>27</sup> On this passage, see also *supra*, p. 233 f. At *PHP* III 5.24 ff. Galen implies that the context of what he calls 'the passage about speech' (*περὶ φωνῆς ... τὸν τόπον*) was etymological. It is hard to think of a reason why, within such a brief space, Galen would be inconsistent in this respect. Rather, he should be taken to be referring to two distinct passages concerned with speech. It can be shown that he tends to speak of 'the argument about speech', or similar expressions, with reference to various passages (see *infra* in text). This apparent discrepancy has led Von Arnim astray, who, though not overlooking III 5.21-2 (cf. *SVF* II 884), printed the whole quotation from Chrysippus (*PHP* II 5.15-20) among the etymological fragments (*SVF* II 911, p.260, 1.3 ff.). This mistake has serious consequences for the reconstruction of Chrysippus' argument as a whole.

<sup>28</sup> See *supra*, p. 234.

Hence a valid and true philosophical argument is more likely to have been put forward in the former type of context. Accordingly, Galen refers to the arguments here as 'rather important' (22, p.204.29).<sup>29</sup>

Does Chrysippus' syllogism qualify as a proof (ἀπόδειξις) in the Stoic technical sense? According to the Stoic definition preserved at Sextus, *PH.* II 135 and 143, proof 'is an argument which, by means of agreed premises, reveals, by a concludent deduction, an obscure conclusion'.<sup>30</sup> This definition appears to have been standard, and, as Brunschwig suggests,<sup>31</sup> its author may have been Zeno. Its reference to the subjective aspect of agreement<sup>32</sup> should be compared with the 'πιθανόν' in Chrysippus' syllogism. This conjunction of persuasiveness and certainty reflects the fact that in the Stoic concept of the cognitive presentation (καταληπτική φαντασία) the subjective and the objective meet (see further below, Ch. 7.2).

As regards the objective aspect, we should note the improvements and elaborations of the definition by later Stoics as reported by Sextus (*PH.* II 134-43, *M.* VII 300-15).<sup>33</sup> These later Stoics included in their exegesis of the definition the explicit requirement that the premises of a proof be true and evident (*PH.* II 138-40). In view of Zeno's emphasis on the concepts of knowledge and self-evidence (Cic. *Ac.* I 41-2, II [*Luc.*] 18, 77), this need not be taken as a correction of his intention in any significant respect.

The obscure conclusion of a proof is something that is not evident to the senses, and not otherwise obvious without further consideration. It must be made clear, or revealed to us, if we are to believe it true.<sup>34</sup> Thus D.L. VII 52 refers to the conclusions of proofs (e.g. that the gods exist, or that they exercise providence) to illustrate cognition (κατάληψις) by reason (λόγῳ) as distinct from that by sense-perception (αἰσθήσει). Also Chrysippus' conclusion 'Thought is located in the heart' (cf. *PHP* II 5.19) expresses a kataleptic presentation clear (ἐκφανῶς) to reason (cf. *PHP* III 1.15:

<sup>29</sup> But, as we have noticed, he neither quotes nor identifies them, see *supra*, p. 236.

<sup>30</sup> ἔστιν ... ἡ ἀπόδειξις λόγος δι' ὁμολογουμένων λημμάτων κατὰ συναγωγὴν ἐπιφορὰν ἐκκαλύπτων ἄδηλον.

<sup>31</sup> Brunschwig (1980) 157 ff.

<sup>32</sup> See Schofield (1983) 55.

<sup>33</sup> See Brunschwig (1980) 125 ff.

<sup>34</sup> Cf. Schofield (1983) 56



οὗτ' αἰσθήσεως ἐκφανοῦς γενομένης).<sup>35</sup> Apparently, the seat of the regent part belongs to the class of unclear things (ἄδηλα) which the Stoics called 'unclear by nature' (φύσει ἄδηλον).<sup>36</sup> These are to be revealed by 'indicative sign', one of whose species, as Sextus often says, is proof.<sup>37</sup> The question whether Chrysippus' syllogism is proof in the technical sense should be answered in the affirmative.

From the syllogism we may, as it were, look backwards at the parallel passages concerned with speech. At *PHP* II 5.15-6 and III 7.34, from contexts dealing with poetry (or, perhaps, in once instance, common parlance), we find Chrysippus describing as 'εὐλογον' ('reasonable', 'probable') certain notions *which anticipate the syllogism concerned with spoken language*.<sup>38</sup> The point is that in the earlier stages of articulation the truth-value of what counts as 'πιθανόν' is determined by the epistemic circumstances typical of common, uncertified thought, i.e. its cognitive relation to objective reality, or truth, differs from that of the syllogism about spoken

<sup>35</sup> On ἐκφανοῦς as a typical designation of kataleptic presentations in Chrysippus, see *supra*, p. 144 n. 39 with text thereto.

<sup>36</sup> Sextus, *PH*. II 97 f. Cf. *M* VIII 144-7.

<sup>37</sup> Sextus, *PH*. II 96, 122, 131, 134; *M*. VII 140, 277, 299.

<sup>38</sup> I take *PHP* II 5.15-16 and 18-20 to be two originally separate pieces of text (17 is a Stoic definition inserted by Galen from a philosophical lexicon; cf. *PHP* II 5.11 f.) and not Chrysippus' formal and self-contained argument. This need not be assumed solely on the basis of the 'epistemic properties' of these two pieces of texts (which properties, to be sure, can hardly be reconciled). We should note the following peculiarities: first, the phrase πιθανόν—ἐκεῖθεν (20) merely repeats what is said in the premise at 15. Next, the two premises at 15-16 feature τὸ κυριεῖον τῆς ψυχῆς μέρος, but at 18 we have τὸν διαλογισμὸν, τὰς διανοήσεις and τὰς μελέτας τῶν ῥήσεων. This terminological variation would be very odd in one cogently worded argument. Further, even when allowing for Chrysippus' notorious style, τὸ γὰρ ὅλον ('for in short') at the beginning of § 18 is odd in its present position following § 16, which is itself an explanatory sentence (cf. γάρ) and also features τὸ ὅλον in its last clause. The fact that at III 5.41, p.208.18 (*SVF* II 899) Chrysippus uses the same phrase (τὸ γὰρ ὅλον) to introduce a sentence which summarizes a review of (common) linguistic expressions suggests what, alternatively, the preceding context of 18 may have been like: it may also have concluded a survey of non-expert material. Apparently, Galen regards 15-6 and 18-20 as forming a complete argument in conjunction with one another, that is, as stating what he thinks Chrysippus is, in fact, arguing, and so he presents them together. This treatment fits Galen's overall lack of interest, in *PHP* II, in the original location of Chrysippus' arguments and agrees with his habit of speaking about the Stoic's 'argument from speech' in the singular with reference to various passages: cf. e.g. III 7.42f., where note that Galen supports his point here *by supplying, on his own account*, a premise and a conclusion to construe a syllogism similar to Chrysippus' presented at II 5.18-20.

language. Therefore its truth-value is indicated by reference to the concept of the εὔλογον which is used to indicate probable yet fallible propositions and which can thus be related to 'πιθανόν'.<sup>39</sup> This is borne out by their negative formulation of the propositions at *PHP* II 5.16-7, representing the so-called 'negated conjunction' (see Ch. 6.2). The difference in truth-value between the type of text thus qualified and the syllogism corresponds to that between the senses (c) and (a) of 'πιθανόν' according to the Stoic distinction at Sextus, *M.* VII 174 f. (see above).

The aspect of anticipation which marks the relation of the above passages to the syllogism at *PHP* II 5.18-20 is crucial for understanding the function of the πιθανόν in Chrysippus' procedure as a 'preparatory' one. As we have seen, there are many more fragments where Chrysippus is pointing to popular parlance,<sup>40</sup> a *bon mot* from the lips of Zeno,<sup>41</sup> and verses from Homer and Hesiod<sup>42</sup> to lay bare patterns of thought which are claimed to support the Stoic view that speech is sent from, and conveyed to, the heart as the seat of the mind. This is reflected by Galen's criticism at *PHP* III 3.7:

.... As a matter of fact he [scil. Chrysippus] has not striven for brevity in any of his works; on the contrary, he is so longwinded that often *for a whole book he twists his arguments up and down, in many different forms, about the same subjects* ....

This is intended as a complaint about Chrysippus' verbosity; but even so, it reflects an important characteristic of his mode of argument. The second part of this quotation indicates that he was engaged in carefully developing one and the same line of reasoning; and, as we have seen, he did so on the basis of various testimonies. This explains why he is said not to refrain from talking again and again about the same subjects, and to present the same<sup>43</sup> arguments in various forms. Apart from the numerous passages about spoken language, those dealing with the perception of the passions (*PHP* III 1.22 ff. 5.41 ff.) come to mind.

By referring the Stoic's *oeuvre* as a whole, Galen appears to suggest that he was personally acquainted with all, or most, of

<sup>39</sup> See *supra*, p. 262.

<sup>40</sup> See Ch. 4.2.

<sup>41</sup> See *supra*, p. 204.

<sup>42</sup> See *supra*, Ch. 5.6.

<sup>43</sup> Galen, it should be noted, is in the habit of speaking of 'the argument from speech' in the singular when referring to various Chrysippean passages, see *supra*, n. 38.

Chrysippus' treatises. This very probably was not the case, and at any rate the *On the Soul* must be at the forefront of his concerns. Yet we are not dealing with mere polemical exaggeration. Conceivably, the above passage echoes a *traditional* criticism of Chrysippus, similar to others current in antiquity.<sup>44</sup> In that case this criticism may well have had some basis in Chrysippus' *regular* procedure.

### 7.2. *Chrysippus, Carneades, and the Levels of Persuasiveness*

Having assembled important evidence concerning the Stoic concept of the *πιθανόν*, Sedley shrinks back from the conclusion 'that Chrysippus had a separate and systematic theory of extra-logical discourse', because 'the classification of topics in the list of his works offers no such hint (D.L. VII 189-202).' Though the book-titles by themselves cannot substantiate any such claim, this may be too pessimistic. In the following pages, I wish to argue that Chrysippus actually had such a theory and that this assumption receives support not only from the *Catalogue*, but also from some of the fragments from the *On the Soul*. But before embarking on this line of argument, I wish to qualify Sedley's formulation to make my point clear. I believe that the terms 'separate' and 'extra-logical' should not be used to describe the picture that emerges from our evidence. The convincing and the logically cogent are much closer to each other than the first term suggests. Sedley, in fact, uses them because he confines the *πιθανά* in Stoicism to a merely supplementary role. However, as we have seen, this cannot be justified; and in the preserved part of the *On the Soul* a 'preparatory' role, related to the articulation of 'common', i.e. non-philosophical, conceptions, can indeed be found.

I shall argue that Chrysippus' procedure corresponds to Carneades' theory of three levels of the 'convincing' (*πιθανόν*), or 'convincing presentation' (*πιθανή φαντασία*), as expounded by Sextus (*M.* VII 176-189). A comparison between the two texts involved is as justifiable as it is rewarding; there are many striking correspondences not only as to individual concepts, but also as to the basic idea of the method involved. This methodology, therefore, is early Stoic in origin, and presumably Chrysippean. I realize that this conclusion detracts from Carneades' probabilist genius, or so it may be felt. However, this historiographical eventuality has to be faced in

<sup>44</sup> Cf. *supra*, p. 134.

view of our evidence. Ample compensation is provided by the light thrown on Chrysippus' poorly documented methodology.

But before arguing this thesis in detail, I recapitulate our main findings concerning the 'epistemic circumstances' indicated by Chrysippus at the beginning of his discussion (*PHP* III 1.10 ff. See Chs. 2.2, 2.3, 2.5 above), and relate them to the Stoic doctrine of the *πιθανόν*. Chrysippus argues that the perception of the location of the regent part is *unclear*, and that this causes the disagreement expounded at III 1.12 ff. (*SVF* II 885). So when he subsequently points out that people in general exhibit a 'tendency' of opinion in favour of the heart, he is not, as Galen maintains, entangling himself in a self-contradiction. Rather, he intends to present this, largely implicit, opinion precisely as what 'opinion', or *δόξα*, means in the technical Stoic sense: namely, assent to an unclear, or non-cognitive (akataleptic) presentation.<sup>45</sup> The widespread controversy concerning the seat of the regent part, which Chrysippus simply has to acknowledge, may be what prevents him from claiming that the Stoic doctrine receives support from what is technically called a common notion (*κοινὴ ἔννοια*), which is characterized by clarity, as he and other Stoics often claimed in other discussions. Yet Chrysippus thinks it worthwhile to maintain that, as he illustrates at length, the evidence furnished by common experience on the whole tells in favour of the Stoic view. Thus, besides qualifying the commonly found conception as indistinct, he represents it as true. This is consistent with reports on Stoic epistemology according to which the class of indistinct, or unclear, presentations contains a number of true ones.<sup>46</sup>

The Stoics believe man's natural make-up to be designed to discover truths—an assumption we have already touched upon in connection with the 'common tendency'.<sup>47</sup> It may also be recalled here when we try to understand how the true but indistinct nature of the common view, or presentation, is related to its quality of being *convincing*. In accordance with the Stoic evaluation of common rationality, the majority of people are said to have come 'from the beginning' to the true awareness that the mind is located in the heart (III 1.23). Apparently, there is a specific value attached to this accumulated experience, however inaccurate and 'weak'.

<sup>45</sup> Cf. Stob., *Ecl.* II p.111.18 ff. W. (*SVF* II 548); Sextus, *M.* VII 151.

<sup>46</sup> See *supra*, p. 175 f.

<sup>47</sup> See *supra*, p. 162.

Obviously enough, Chrysippus is assembling such a great number of testimonies to show that it is, in fact, the majority which entertains the view in question. But the doctrinal background here is that this also indicates that it is a *natural* view, i.e. one which people are *inclined* to take.<sup>48</sup>

There are good reasons for believing that these assumptions also provide the basis for the view that the presentation in question is *convincing*. The Stoics defined a convincing proposition<sup>49</sup> as that which leads (ἄγων) us to assent (D.L. VII 75). The convincing presentation is said to 'produce a smooth (λεῖον) motion in the soul' (Sextus, *M.* VII 242 = *SVF* II 65). There are also definitions of the 'non-convincing' presentation as 'one that deflects us from assent' and of the 'neither convincing nor unconvincing' presentation which induces no mental reaction (*ibid.*).<sup>50</sup> The latter kind is exemplified by the presentation expressed as 'The stars are even (or uneven) in number' (*ibid.* 243), and it is this presentation that is also used as an example for something that is *absolutely* concealed from our perception, that which is καθάπαξ ἄδηλον (*M.* VIII 147; *PH.* II 97). In due course we shall encounter further evidence that the quality of the convincingness of a presentation is related to its degree of clarity.

As Couissin already pointed out,<sup>51</sup> if a convincing presentation *leads to* assent, that does not mean that we cannot withhold it. Thus the πιθανόν is reconcilable with suspension of judgement (ἐποχή).<sup>52</sup> In this case too, Chrysippus' procedure at III 1.10 ff. fits the theory

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<sup>48</sup> The latter aspect is connoted by the term 'φορά' used in the expression 'common tendency'; see *supra*, pp. 164 ff. esp. 166.

<sup>49</sup> It presents no difficulty that here the term 'convincing' labels a proposition, not a presentation; cf. the case of 'true' and the Stoic classification of presentations at Sextus, *M.* VII 241-8.

<sup>50</sup> This type of classification is typically Stoic; we should compare especially the tripartition of indifferent things from the perspective of their stirring an impulse towards them, away from them, or neither: *SVF* III 119-122. For the last category, the example of the stars is used too. These three possibilities for the mind's reactions, which obviously pertain to presentations, may be aligned with the three types of reaction to presentations according to their 'convincingness'. This correspondence between the psychology of belief and the psychology of action is not merely formal but indicates an actual connection, if not identity, between behavioural and cognitive mental acts; see *supra*, pp. 163 ff.

<sup>51</sup> Couissin (1929/83) 62 n.45.

<sup>52</sup> See *SVF* II 994. Contrast the case of a cognitive presentation, of course; accordingly, the *language* used to describe its impact on the mind is designed to indicate that it commands assent more directly: see *supra*, p. 165.

as reconstructed from other sources. By relating the Sceptical technique of *διαφωνία* to the indistinctness of the perception involved, Chrysippus' *initial* result is, indeed, suspension of judgement—the standard Sceptical conclusion from *διαφωνία*. On the Stoic view, it is the reaction of the Sage, i.e. the proper reaction, to a non-cognitive presentation to withhold assent.<sup>53</sup> Now the convincing and common presentation recommends itself as the beginning of a way out of the deadlock—and, as we have argued, the doctrine concerned with common rationality helps explain this procedure; there may be *objective* grounds for the majority's assent to a particular presentation. The subjective point of view resides in the character of presentations as convincing or not convincing, but, as an *aspect* of the cognitive process, it remains ultimately oriented towards objective reality. Chrysippus' procedure could be said to consist of a clarification of the relation between the subjective and the objective aspects in the case of one particular presentation; or, to put it differently, the subjectively acceptable presentation is transformed into one that is *certifiably* true. At the conclusion of this procedure the suspension of belief is definitely overcome. We shall have to explain this procedure in greater detail.

Presentations can be viewed from three aspects: (1) as convincing or not (subjective aspect); (2) as true or false (objective aspect); (3) as cognitive, or 'kataleptic', or the contrary (their objective validity is, or is not, guaranteed for the subject). It is these three aspects that are given as *types* of presentation by Sextus, *M.* VIII 241–248 (*SVF* II 65), who explicitly attributes this schema to the Stoics. Sextus subordinates the three types to each other as follows: (1) classification of presentations in general with regard to convincingness; (2) classification of convincing presentations with regard to truth; (3) classification of true presentations with regard to cognition (*κατάληψις*). Sextus says that there are many other distinctions which he could have given (241); yet the above distinction may have been standard. It is tempting to breathe some life into this hierarchical arrangement by taking it as a methodological programme comparable with that put into practice by Chrysippus, who takes account of all three aspects, and does so, we may assume, in a specific order. At any rate, the scheme presented by Sextus confirms that the aspect of convincingness was important to

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<sup>53</sup> On Stoic suspension, see also *supra*, p. 185.

Stoic epistemology, and, furthermore, indicates how it was related to the two other aspects.

A further source of information on the Stoic position are the accounts of the *πιθανόν* from Sceptical contexts. Scholars have usually worked the other way round, trying to explain Sceptical arguments in the light of Stoic doctrines, for the Sceptics construed arguments from Stoic concepts to derive conclusions uncongenial to the Stoics. This tactic has long been recognized and need not be dwelt upon. On the whole, it was typical of Hellenistic philosophers to work with a constant eye on *each other*. As we have seen, Chrysippus too used certain Sceptical instruments. So it is entirely justifiable to adduce some Sceptical material in this connection.

The *πιθανόν* is closely connected with the Scepticism of Carneades (fl. mid 2nd c. BCE), who was renowned for his criticism of Chrysippean Stoicism.<sup>54</sup> While he himself, like Socrates, wrote nothing, his pupil and successor, the philosophizing Phoenician Clitomachus, was a prolific writer, who recorded his teacher's arguments. Clitomachus' treatises are no longer extant, but thanks to their use by other authors some information about Carneades' arguments is still available from surviving sources.<sup>55</sup> However, fundamental questions concerning their precise purport have remained under discussion, ever since Couissin explored the mutually fruitful symbiosis of Stoa and Sceptical Academy as opposed schools.<sup>56</sup>

Carneades too used Stoic concepts for anti-Stoic ends. He may be taken to have been familiar with Stoic dialectic.<sup>57</sup> It is now widely recognized that his concept of the *πιθανόν* as such is a Stoic borrowing.<sup>58</sup> This concerns both the aspect of fallibility<sup>59</sup> and the psychic response involved. As regards the latter, Carneades describes as convincing the presentation which appears true, and this means that which 'is of such a nature as to convince us' (Sextus, *M.* VII

<sup>54</sup> See esp. A.A. Long, 'Carneades and the Stoic Telos', *Phronesis* 12 (1967) 59-90.

<sup>55</sup> Particularly important is the fr. from Clitomachus' *On Withholding Assent* found at Cic., *Luc.* 99 (Fr. 5 Mette).

<sup>56</sup> See esp. Couissin (1929/83), and, for Carneades, 44 ff. in particular.

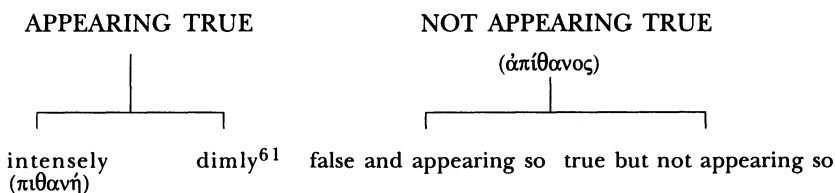
<sup>57</sup> Cf. Cicero's report that Carneades was taught dialectic by Diogenes of Babylon, the fifth Stoic scholarch and one of Chrysippus' pupils, Cic. *Ac. Pr.* (Lucullus) 30.98.

<sup>58</sup> Couissin (1983) 46 ff. Sedley (1982) 250, with further references. Cf. also *supra*, pp. 256 ff.

<sup>59</sup> See *supra*, p. 266.

169) and which 'draws us to assent' (ἐπισπᾶσθαι εἰς συγκατάθεσιν, *ibid.* 172). Clearly, this closely resembles the Stoic texts we have been reviewing above.

To Carneades is attributed a theory of levels of convincingness, which could also be described as a scale of criteria. This theory is expounded at Sextus, *M.* VII 176-189 (Fr. 2 Mette, part),<sup>60</sup> preceded by a passage on presentations and 'convincing presentations' in particular (*ibid.* 166-175 = Fr. 2 Mette, part). From an objective aspect presentations can be classified as true or false according to whether or not there is agreement with the external object. In their subjective aspect, they are classified as follows (*ibid.* 169-172):



The presentation which, while spanning both truth and falsehood, appears intensely true 'draws us towards assent' (*ibid.* 172; see above). This presentation is convincing and qualifies as a criterion. Next the three levels are set out: (1) the convincing presentation; (2) the convincing undiverted (ἀπερισπάστος) presentation; (3) the convincing undiverted and thoroughly explored (διεξωδευμένη or περιωδευμένη)<sup>62</sup> presentation. All three levels are illustrated at length.<sup>63</sup>

<sup>60</sup> See also the briefer account *PH* 1.227-230 and Sextus' criticism at *M.* 7.435-8. For discussions see Couissin (1983) 47 ff. Long-Sedley (1987) vol. 1, 457 f., Bett (1989), Allen (1994). Further references to the three levels are found at Sextus, *PH*. I 227; Cic., *Luc.* 33, 36. In *PH*. I 227 the order of the second and third levels in *M.* 176 ff. has been reversed, but this is irrelevant. As to Sextus' source, Antiochus' *Canonica* has often been taken to be the most likely candidate: see the reference at *M* 7.162 and 201 f. Caution seems due however; see Allen (1994) 90 with further references.

<sup>61</sup> ἡ μὲν τίς ἐστιν ἀμυδρά ..... συγκεχυμένως καὶ οὐκ ἐκτύπως τι λαμβανόντων (171); ἡ ... ἀμυδρά καὶ ἔκλυτος φαντασία ... τῷ ... μήτε αὐτὴν μήτε τὸ ποιῆσαν αὐτὴν τρανῶς ἐνδείκνυσθαι ... (172).

<sup>62</sup> Standing for the procedures of careful examination and circumspection respectively; the former seems to pertain to presentations taken by themselves, whereas the latter implies the process of checking them against related ones; see Allen (1994) 99.

<sup>63</sup> Cf. H. Mutschmann, 'Die Stufen der Wahrscheinlichkeit bei Carneades', *Rheinisches Museum* 66 (1911) 191 ff. who discusses the discrepancies



Scholars studying the Sceptical Academy have become increasingly aware that the *πιθανόν* passage bristles with Stoic concepts.<sup>64</sup> Most notably, the verb *περισπῶ* ('divert') was used by Chrysippus in the same sense and in connection with the *πιθανόν* in the invaluable fragment from the *On Lives* (Plut. SR 1036D-E = SVF III 271; see above, p. 264). It may be compared with Carneades' explanation of 'undiverted' *ap. M.* VII 182 in particular. This parallel and others have encouraged an interpretation of Carneades' levels of convincings as an *ad hominem* reply to the Stoic challenge to account for the rational conduct of life without assent, or cognitive presentation (the well-known ἀπραξία-argument). If Carneades' intention was merely dialectical, he may be expected to draw heavily on Stoic concepts, just as Arcesilaus had done before him.<sup>65</sup> Yet the presence of Stoic material in itself cannot decide the question whether Carneades' scale may be taken to represent a doctrine to which he is committed in some form (though not, of course, by assenting to it in the Stoic manner).<sup>66</sup>

Clearly, as concerns the criterion itself, Carneades presents an entirely subjective explanation.<sup>67</sup> But in precisely what form and manner do we encounter Stoic material here? Do we have a mere rearrangement of a number of Stoic concepts which results in something new, viz. the stemma of presentations and the scale of the three levels? Although he acknowledged the correspondence between Carneades' use of the concept of the 'undiverted' and that of Chrysippus,<sup>68</sup> Couissin arrived at a *non liquet*, concluding that ' ...

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between the accounts at *M* 7 and *PH* 1 (see *supra*, n. 60), notably the fact that the latter work puts the last two stages in a reverse order. On this problem see now Allen (1994) 90 ff. who persuasively argues that the trifold scheme of *M.* VII is problematic in itself and points to a confusion between features of the presentations involved and the manner in which we come to have or retain them. In particular the scala does not fit the Sceptical examples which purport to illustrate it, viz. that of Admetus and Menelaos. Moreover it presupposes a diaeresis or division (into genus and species), whose rigidity seems alien to the open-ended conception of knowledge propagated by Carneades. Some of these problems become more explicable if I am right to argue that Sextus' account is basically Stoic in origin; see further in text.

<sup>64</sup> See the collection in Bett (1989) 79.

<sup>65</sup> See Long-Sedley (1987) vol.1, 459; cf. Bett (1989) 76 ff. esp. 79.

<sup>66</sup> See *supra*, p. 259 n. 31.

<sup>67</sup> Although references to the external object oddly intrude in a number of passages: see *infra*, n. 85 with text thereto.

<sup>68</sup> Couissin (1929/83) 48. His attempt to connect the terms 'διεξωδευμένη' and 'περιωδευμένη' ('thoroughly explored'), which characterize the third level, with Stoic concepts is unsuccessful. He refers to *διέξοδος* as used by Chrysippus

Carneades was able to find the elements of his scale of the persuasive [i.e. the *πιθανόν*] in Stoicism itself. Nonetheless, these elements had little importance in the Stoa, where they were usually devoid of any characteristic significance; so it is impossible to assert that Carneades borrowed them from there.<sup>69</sup> It is clear from our preceding survey (Ch. 7.1) that Couissin underestimated the part played by the *πιθανόν* in Stoicism.<sup>70</sup> Since his pioneering work, it has remained customary to say that Carneades adapted, or refined, Stoic material, but it has never been specified in detail what these manipulations consisted of, and, by implication, precisely what definitely is not Stoic in Carneades' scheme—apart from his obvious aim to connect the properties of the Stoic cognitive presentation with the convincing presentation.<sup>71</sup>

Bett's recent attempt to clarify matters is open to criticism.<sup>72</sup> The true but dim presentation, contrary to what he says, is not Carneades' own invention, but an originally Stoic concept indicating a subdivision within the class of non-cognitive presentations.<sup>73</sup> Both for Carneades and the Stoics it lacks the properties of a criterion, since it does not command an approving response in the mind. And when Carneades substitutes, as a criterion, the 'convincing' presentation for the Stoic cognitive presentation, he bases this on the clarity of the former and on its more direct way of eliciting assent (though not assent in the strong Stoic sense). These specifications are palpably Stoic. Further, Bett fails to substantiate his claim that in Carneades' account the *relations* between *πιθανότης* and truth or falsehood are considerably different from what the Stoics thought. Indeed, as regards the 'relations' in themselves it is hard to discern any significant differences between Sextus, *M.* VII 166 (Carneades) and *ibid.* 242 ff. (*SVF* II 65); rather, this aspect

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*ap.* Gal. *PHP* III 7.34, 42 (*SVF* II 903), but there the mental act of going through a discourse before uttering it is meant (cf. 42; Sextus, *M.* II 6 f.), not the scrutiny, or testing, of beliefs. To the best of my knowledge, none of these terms is used in extant Stoic texts in a way which corresponds significantly to the Carneadean usage. However, as we shall see, it is possible to detect such a correspondence in the case of the term 'δοκιμάζω', used in connection with the third level at *M.* VII 182.

<sup>69</sup> Couissin (1929/83) 48.

<sup>70</sup> As does Ioppolo (1986) 201.

<sup>71</sup> Cf. Long-Sedley (1987), vol. 1, 458; Allen (1992).

<sup>72</sup> Bett (1989) 77 ff.

<sup>73</sup> See *supra*, pp. 184.

appears to be treated in precisely the same way. Bett also argues that the Stoic concepts used for explaining levels (2) and (3) were used by the Stoics in contexts 'somewhat unlike those in which Carneades uses them', pointing to the verb δοκιμάζω ('test', 'scrutinize') at *M.* VII 182, which appears to pertain to the Stoic Sage (*SVF* III 124-6). But no serious discrepancy is involved here. The Stoic Sage too is satisfied with a convincing presentation, if certainty is not available.<sup>74</sup> In fact, the *procedure* indicated by the verb δοκιμάζω in Carneades' theory neatly fits the Stoic concept of method connected with the *πιθανόν*. I shall revert to this point presently.

I conclude that there is much that is indisputably Stoic in the Carneades passage insofar as both concepts and relations between concepts are concerned, while there is room for doubt as to the precise way in which the Stoic material has been handled. This should warn us not to be too quick to posit manipulation of this material on Carneades' part, in particular with regard to the use of the *πιθανόν* as a criterion. We have no other independent evidence about Carneades to settle this point. It is therefore perfectly reasonable to try and detect further Stoic doctrinal material in the report of Carneades' theory, notably in the section where the levels, or stages, of the 'convincing' are expounded (*M.* VII 176-89). This section will now be compared with material from Chrysippus' *On the Soul*.

I start from the argument at *PHP* III 5.41 ff. and 7.2 ff., whose status as *πιθανόν* has been established above (Ch. 2.6). To these passages, then, Carneades' specifications concerning the convincing presentation are to be applied. We have to concentrate on Chrysippus' mode of treatment of one particular presentation (*φαντασία*), expressible by the proposition 'the mind (or regent part) is in the heart', and decide whether the convincing nature of this presentation is established in such a way that it is represented as 'undiverted' and 'thoroughly explored' in accordance with Carneades' theory. On the former characteristic we are informed by *M.* VII 176-8 in particular. In any situation, we receive a multiplicity of interconnected presentations. If all of these together appear true, our 'belief is all the greater'.<sup>75</sup> Undivertedness, then, indicates the

<sup>74</sup> Compare the example of the sea-traveller's optimism; see *supra*, n. 11 with text thereto.

<sup>75</sup> See the account of Long-Sedley (1987) vol. 1, 458.

contribution of coherence and mutual corroboration, which Sextus (Carneades) illustrates by means of the metaphor of a chain. Arguably, this general description fits Chrysippus' procedure in that he corroborates the presentation under scrutiny by connecting it tightly with related presentations, some of which are obvious and hence 'cognitive'; i.e. he shows the presentation to cohere with these others. Each of the interrelated presentations, or 'presentations in the concurrence' (συνδρομή; cf. *M.* VII 179, 182), appears more true to the extent that it depends on others which appear true. Carneades' requirement that none of the presentations in the concurrence should divert us by appearing false corresponds to the fact that Chrysippus presents presentations as partly true in their own right, partly as *justified* by the class of true ones, i.e. by logical inference. This type of corroboration is also brought about by Chrysippus when he insists that the sensation felt in the chest is authentic and primary. Those presentations are secondary which arise from physical symptoms in other organs and thus seem to speak in support of these organs; accordingly, they may divert the correct presentation. This aspect is also apparent from Chrysippus' references, in other fragments, to notions or linguistic expressions pointing to the head or somewhere else as the seat of the mind.<sup>76</sup> These instances, denounced by Galen as glaring self-contradictions, merely echo and exemplify the disagreement Chrysippus himself acknowledges at the outset of his argument (*PHP* III 1.12 ff. = *SVF* II 885; see Ch. 2.2). They result from deviating, and diverting, presentations, which have to be neutralized. This is effected by the testing of the presentations in question which is characteristic of the 'thoroughly explored' presentation (see below). And the sheer bulk of material marshalled by Chrysippus from the common notions to corroborate the correct presentation may also serve the purpose of neutralizing diverting presentations.

I now proceed to the picture of Chrysippus' method as emerging from *all* the extant fragments of the *On the Soul*. Carneades' three types of presentation represent ascending levels of examination and correspondingly growing, though never complete, certainty, and the third comprises the characteristics of the two preceding ones. As Sextus explains (*M.* VII 181 ff.), in the case of an undiverted presentation which is also 'thoroughly explored', each

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<sup>76</sup> See *supra*, Ch. 4.4.

associated impression is subjected to a meticulous examination, comparable to the scrutiny of candidates for public office. The third type entails the specification and testing of the cognizing subject (e.g. as to whether his sensory faculties are not hampered), the object to be known and a plurality of other circumstances, all of which may present obstacles to the judgement to be made.<sup>77</sup> Likewise Chrysippus begins with an explanation of 'epistemic circumstances', pointing to the indistinct nature of the sense-perception of the seat of the dominating part in particular (*PHP* III 1.15 = *SVF* II 885). Comparison is not fanciful here.

Further, Carneades' interest in the question of who is the subject making the judgement indicates that some testimonies are more relevant than others. From Aristotle onwards,<sup>78</sup> it is essential to dialectic as an art that it does not pay attention to the views of random individuals but organizes and selects certain views as typical and specially relevant to the subject under consideration. Chrysippus' careful way of arranging the material drawn from various testimonies shows him to be no less sensitive to this aspect.<sup>79</sup>

Whereas in daily life the 'convincing' presentation will be sufficient in most cases, and in greater matters the 'undiverted' presentation is employed, the third is said to be necessary in matters of importance; it represents the *philosophical* mode of proceeding (*M.* VII 184, *ad finem*), entailing an exhaustive programme of testing a particular presentation. As we have seen, one of the words used for this testing, δοκιμάζομεν (*ibid.* 182), is paralleled in a few Stoic texts, where it is applied to a person, presumably the Wise Man, in connection with moral evaluation (*SVF* III 124-6). Chrysippus *ap.* Plut. *SR* 1045E (*SVF* III 175) uses the verb (δοκιμαζόντων) to refer to the testing of two indistinguishable drachmas, one of which has to be chosen; this testing is pointless, and after a while the mind will just incline to one of them 'for some unclear reason'. This simile, of course, stands for the testing and choosing of indistinguishable things, and thus *presentations*, in general. Chrysippus' use of δοκιμαζόντων here may therefore be aligned

<sup>77</sup> The circumstances specified here closely resemble the attributes of the kataleptic presentations added by certain Stoics according to Sextus, *M.* VII 424.

<sup>78</sup> Cf. esp. *SE* 9.170b5-8; *Rhet.* A 2.1356b30-6, with Evans (1977) 75 f.

<sup>79</sup> Cf. *supra*, pp. 267 f.

with Carneades' *ap.* Sextus. Note that in the same context Chrysippus uses (ἐπι)ζητεῖν as equivalent to δοκιμαζόντων: likewise in Carneades' account, the verb ζητῶμεν is used for the inquiry typical of the third level (*M.* VII 184).<sup>80</sup>

The kind of testing typical of the third stage is also compared with the questioning of a large number of witnesses, when each is cross-questioned *on the testimony of the others*, as opposed to the questioning of a single witness (*ibid.*, 184). The third mode of scrutiny, then, continues on a grand scale the procedure of mutual corroboration. Obviously, Chrysippus is calling on, and testing, a variety of witnesses to arrive at a judgement about the conflict of tenets concerning the regent part of the soul. Here too it is important to recall that he refers to testimonies which contradict the cardiocentric view, the first instances of which are presented at the beginning of the discussion (*PHP* III 1.12-15; see Ch. 2.1), a very significant location. All these testimonies are to be weighed against each other, as regards both quality and quantity, to reach a decision between the competing alternatives. This aspect also appears from the comparison of Chrysippus with a judge and other images (e.g. the balance) used to illustrate his method.<sup>81</sup>

Some further correspondences need to be pointed out. The notion of the coherence between presentations, which is so important in Carneades' theory, is also central to the Stoic concept of knowledge (ἐπιστήμη; cf. *SVF* I 68 ff. II 90 ff.)<sup>82</sup> and the Stoic definition of proof.<sup>83</sup> Accordingly, Chrysippus wishes not only to transform a non-cognitive presentation into a cognitive one, but also to strengthen the presentation by ensuring it a fixed place in a coherent system of conceptions; and this is what enhances its convincingness to the highest possible degree. And the result of this

<sup>80</sup> For Chrysippus' conception of ζήτησις see further below (p. 286).

<sup>81</sup> See Mansfeld (1990a) 341 f. and see further *supra*, p. 160. The idea that the person acting as arbitrator will eventually incline towards one among the contrasting views is also at issue at *Plut. SR* 1045F, where also note the testing (δοκιμάζω) of presentations.

<sup>82</sup> For an account of the Stoics' notion of truth as one of coherence, see J. Annas, 'Truth and knowledge', in Barnes (1980) 84-104, esp. 87 ff. This idea, which is closely related to Chrysippus' procedure of checking an impression against other related ones, is early Stoic, indeed Zenonian. As an aspect of the Stoic position, this is insufficiently taken into account by Allen (1994), esp. 104.

<sup>83</sup> See *supra*, pp. 270.

procedure, at least as concerns the material dealing with spoken language, is laid down in the proof presented at *PHP* II 5.19-20.<sup>84</sup>

In Carneades' concept of the convincing and thoroughly explored presentation the aspect of the coherence of a presentation is closely related to its clarity. If, as a result of the programme of testing, we see something very plainly so that it is 'clear from all sides' (περιφανῶς), we 'assent to its being true' (*M.* VII 188).<sup>85</sup> Now in the Stoic scheme at *M.* VII 242 this clarity (περιφάνεια) characterizes a convincing presentation as well.<sup>86</sup> Moreover, the example given here ('It is day') is used subsequently to illustrate a convincing-and-true presentation (*ibid.* 244), which in this particular case also qualifies for being 'cognitive' (cf. the further subdivision, *ibid.* 247 ff.).

As we have seen, Chrysippus' procedure in the *On the Soul* results in a clear and stable presentation, which is expressed in the conclusion of the argument concerned with spoken language (*PHP* II 5.19). Sextus' exposition of Carneades' criterial scheme indicates a procedure with essentially the same objective. It is easy to see that what for Carneades is the clearest, and so most reliable, convincing presentation is what for the Stoics is a 'cognitive' ('cataleptic') presentation. Obviously, Carneades strives to confine the Stoic scheme to the subjective sphere of the *πιθανόν*. While stressing that only subjective acceptance is available in using certain presentations as criteria, he retains as many properties as possible which the Stoics had assigned to convincing presentations, some of which *they* took to be 'cognitive', and so objectively true. The

<sup>84</sup> *Ibid.*

<sup>85</sup> This turn of phrase—instead of 'appearing to be true'—is intriguing. It may be a mistake or later adulteration; yet compare the use, in agreement with the Stoic use, of the predicate 'true' for the external object at 174, where 'the apparently true, and true' and the 'apparently true, and false' *are aligned with* <what appears> true <which> is common to them both'; Long-Sedley (1987), vol.1, 456 f. call this distinction 'incompetent', and take the third sense to be generic in regard to the first two. There are similar difficulties in the context, which are possibly, though not certainly, textual; cf. Long-Sedley (1987), vol.2, 446 f., and Allen (1992) 94, who also remarks on the references to the truth and falsity of impressions, which he calls 'surprising' and 'a bit odd'.

<sup>86</sup> Note that the phrasing here (πᾶν ὃ τῆς ὁμοίας ἔχεται περιφανείας) implies the idea of various *degrees* of clarity, and so of convincingness. The existence of degrees of the *πιθανόν*, to be attained successively, is also emphasized in Sextus' report of Carneades' doctrine: see esp. *M.* VII 173; cf. Le Blond quoted *supra*, p. 255 n. 17, who points to the same aspect of the εὐλογον and the ἄτοπον, which can both be related to the (ἀ)πίθανον.

clarity which, to varying degrees, marks various types of presentation is one of these properties; it is capable of a subjective explanation and hence is taken over by Carneades as well.

The basic epistemological difference between the Carneadean and the Stoic doctrines as expounded by Sextus' two reports reduces a difference in the extent to which one wished to maintain either a dogmatic or an open-ended stance. When the Stoics adopted a less rigorous posture in regard to certain doctrines, and these were also shared by the Academics, the *epistemological* difference was apt to become gradually less significant. At a certain stage it must have seemed rather verbal.<sup>87</sup>

As a final observation, I should stress the aspect of hierarchical order in Carneades' scheme. This begins with the stage typical of everyday life and thought, and ends with a stage which *adds* several operations characteristic of philosophical inquiry (cf. *M. VII* 184 ζητῶμεν). This aspect may be compared with the early Stoic conception of inquiry (ζήτησις) as an articulation starting from common notions.<sup>88</sup> In view of the importance attached by Chrysippus to this form of inquiry, it is only natural that he should have gone some way towards working out a theoretical framework with which to approach non-philosophical modes of thought.

It is impossible to demonstrate that Carneades took the formal division into three levels of probability from Chrysippus; indeed, it is more likely to have been Academic in origin.<sup>89</sup> But as far as our purposes are concerned this is not the most important thing. As regards both distinct concepts and their interrelationship there is an indubitable correspondence between the doctrine attributed to Carneades and the early Stoic material. Moreover, the methodology connected with the Carneadean scheme has been shown to correspond closely to the *method applied* in the first book of the *On the Soul*. As we have seen, Chrysippus' development of a particular idea in the sphere of the πιθανόν follows the programme of check-

<sup>87</sup> See the important testimony found at *PHP* IX 7.3 f. On this development, which of course is related to the rise of syncretism see Frede further (1987) 175 f., Hankinson (1991b); cf. also Allen (1994) 104.

<sup>88</sup> On the demonstration in the *On the Soul* as a ζήτησις, see *supra*, p. 167.

<sup>89</sup> The differentiation and succession of these levels differ in different context in Sextus and elsewhere (cf. e.g. Gal. *PHP* IX 7.3). It is also problematic in itself—which could precisely be due to the fact that it was a later imposition on an originally Stoic idea, quite in line with the thesis I am arguing; cf. also *supra*, n. 63. Further, it can hardly be coincidental that the trichotomous division is never associated with the Stoics in our sources.



ing, ordering and corroborating presentations outlined in Sextus' account of Carneades' three levels. Consequently this methodology must be essentially Stoic, and, I would argue, Chrysippean.<sup>90</sup>

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<sup>90</sup> On behalf of the Stoics Allen (1994), esp. 104 ff. sketches a line of defence against the Sceptical criticism of their concept of cognitive presentation as their criterion of truth. It is not clear whether he assumes that this defence had actually been undertaken by the Stoics (e.g. by the 'ancient observers' who came to think that that the differences between the Academy and the Stoa over the criterion were insignificant, p. 104) or is determining the strength of the respective positions from a modern point of view. He argues that since the 'value of a cognitive impression cannot be sensitive to influence by other impressions, it cannot depend in any way on the outcome of our reflections about it' (p. 105). But whatever *we* may find the more defensible position, Chrysippus did associate obviousness as an internal feature of presentations with that of their mutual coherence. From a historical point of view these two aspects, then, cannot be opposed as characterizing the respective positions of the Stoics and Carneades in the way Allen does. The difference—well brought out by Allen himself—between dogmatic and open-ended conceptions of knowledge does not coincide with the opposition between the ideas of self-evident presentations vs. a set of cohering probable ones. Interestingly, Allen also finds certain features of Sextus' account incompatible with the open-ended idea of knowledge; cf. Allen (1994) 97, 103 with *supra*, nn. 63, 85.

## CONCLUSION TO PART TWO

In *PHP* II-III we encounter two arguments by thinkers whose argumentative techniques are crucially different. This is not merely true in an implicit way: Galen evaluates Chrysippus' arguments in the light of specific methodological standards, notably those implied by his fourfold scheme of premises. The conflict between their methods is particularly manifest from their evaluation of 'witnesses', that is to say, what Aristotle had called the reputable (ἐνδοξα) views of experts (such as philosophers and scientists) and non-experts alike. In his demonstration of the cardiocentric theory, Chrysippus starts out from such views, exploring a variety of subjective perspectives from the spheres of common notions, popular parlance, science and poetry. It is precisely conceptual material of this kind which Galen has unequivocally excluded from scientific as well as dialectical discourse and demoted to the status of rhetoric (see Conclusion to Part One).

Chrysippus unfolds his demonstration according to a definite plan. As has been shown, the different fields of reference he draws upon (common experience, ordinary language, science, poetry) correspond, in their specific order, to the successive stages of articulation of a limited set of recurrent notions and inferences. Thus poetry represents a more advanced stage of conceptual articulation than the views of the public at large. Accordingly, Chrysippus formulates a philosophical, 'technical', argument in the course of his discussion of statements made by poets and experts. This argument, based on the physiological mechanism of spoken language, is constructed out of conceptual material assembled in all preceding spheres of reference. Its conclusion expresses an evident and certified ('cataleptic') presentation. As such, it marks the culmination of a procedure whereby a widespread yet unclear train of thought is transformed into a clear and coherent argument which may count as proof in the Stoic technical sense. The purely subjective insight has become one whose objective truth is guaranteed for the knowing subject.

The relevance of the πιθανόν ('the convincing') and related concepts such as the ἄτοπον ('implausible') and εὐλογον ('reasonable') has been established on the basis of passages where Chrysippus'

expounds his version of the traditional argument from the perception of the passions in the heart (Chs. 2, 5.6, 6, 7). These concepts played a specific part in the dialectical debate between Stoics and the Sceptical Academics as to whether their doctrines agreed with the common notions—that is to say, the latter served as the criterion of plausibility, or otherwise, of philosophical doctrines. The Stoics claimed that their philosophy was rooted in common experience—an idea which should be compared with articulation as a methodological principle as well as with the different kinds of testimony used by Chrysippus in the *On the soul*. The ‘convincing’ (πιθανά) pre-philosophical notions at issue here should be understood in the context of this dialectical debate. Thus Chrysippus’ reference to the perception of the passions in the heart (which prompts the idea that the mind resides there) is found in his exposition of common opinion (κοινή φορά) and is meant to imply that the placement of the passions and the mind in one and the same organ is a more plausible point of departure than a division of psychic faculties along Platonic lines. Here too, then, the status of common opinion as the standard of plausibility is at issue (Chs. 2.3, 6).

It has proved feasible and rewarding to consider Chrysippus’ entire argument in terms of the πιθανόν (Ch. 7). This approach is encouraged by fragments relating to Chrysippean dialectical method in Plutarch and other sources. Of prime importance is Sextus Empiricus’ account of Carneades’ three levels or stages of the πιθανόν (M. VII 176-189). It has long been recognized that Carneades is here drawing *suo more* on Stoic concepts, though his motivation, as well as the precise extent and nature of Stoic reference, have remained contentious. But, as we have seen, the methodology connected with Carneades’ scheme exhibits a number of significant similarities to Chrysippus’ use of the πιθανόν and general method in the *On the soul*. It follows that the methodology expounded by Carneades is Stoic and presumably derives from Chrysippus in particular. The correspondences between the two philosophers moreover indicate that the method of the *On the soul* was used *mutatis mutandis* by Chrysippus and others on a wider scale.

The relevant sections in Sextus thus provide invaluable material for comparison with Chrysippus’ procedure in the *On the soul*. In particular his use of the concepts of truth and obviousness can be

more fully understood when seen in the light of Carneades' method of articulating, i.e. ordering and testing, convincing presentations. Part and parcel of this method is the identification and neutralization of 'diverting' presentations. It is here that Galen finds something to seize upon, misconstruing Chrysippus' treatment of divergent presentations as admissions of the truth and as self-contradictions. But, it should be noted, such instances of counter-evidence are invariably derived from the earlier stages of articulation, notably the sphere of common notions; we found no statements by poets or sages explicable in this manner (which of course does not prevent Galen from using some of them to fabricate cases of self-contradiction too).

The key to understanding Chrysippus' argument as an integral whole lies in the concept of the *πιθανόν* as a tool of early Stoic dialectic. The fragments of the *On the soul* enable us to document, almost step by step, the way he applied this tool to the question of the seat of the psychic functions in the body. As we have noticed, this and other peculiarities of Chrysippus' procedure are typical of Hellenistic dialectic. Galen, for his part, is devoid of sympathy for this background. His rejection of Chrysippus' appeal to the *opinio communis* and individual authorities attests to a crucial difference between him and Chrysippus in their reception and elaboration of notions ultimately derived from Aristotelian dialectic. Galen reflects the mainstream understanding of Aristotelian theory of science in many respects, but diverges from it by assigning the *ἐνδοξα* and *πιθανά* to rhetoric. By contrast, the key notion of Aristotle's *Rhetoric*, the *πιθανόν*, is central to Chrysippean dialectic and, presumably, to the Hellenistic reception of Aristotelian dialectic in general. The positions of Galen and Chrysippus, then, represent divergent developments from the same stock. They illustrate some of the ways in which the mutual relations between dialectic, rhetoric and science were reconsidered in the post-Aristotelian period.

## BIBLIOGRAPHY

*This bibliography contains all titles referred to more than once. For all other books and articles full references are given in the footnotes. For ancient authors see the editors as listed in the Index locorum.*

- Algra, K.A. (1995), *Concepts of Space in Greek Thought*. Philosophia Antiqua LXV (Leiden etc.).
- Allen, J. (1994), 'Academic Probabilism and Stoic Epistemology', *CQ* 44.1, 85-113.
- Annas, J. E. (1992), *Hellenistic Philosophy of Mind*. Hellenistic Culture and Society, Vol. VIII. (Berkeley etc.).
- Arnim, H. von (1899), art. *Chrysippos* (nr.14), *RE* III (1899) 2502-9.
- Arthur, E.P. (1983), 'The Stoic analysis of the mind's reactions to presentations', *Hermes* 111, 69-78.
- Barnes, J. (1980), 'Proof Destroyed', in Schofield (1980a) 161-81.
- , (1985), 'ΠΙΘΑΝΑ ΣΥΝΗΜΜΕΝΑ', *Elenchos* 6, fasc. 2, 453-67.
- , (1991), 'Galen on logic and therapy', in Kudlien and Durling (1991) 50-102.
- Barnes *et al.* (eds.) (1982), *Science and Speculation: Studies in Hellenistic theory and practice* (Cambridge).
- Barwick, K. (1957), 'Probleme der Stoischen Sprachlehre und Rhetorik', *Abh. Sächs. Akad. Wiss. Leipzig*, Phil.-Hist. Kl. 49.3 (Berlin).
- Bett, R. (1989), 'Carneades' *Pithanon*: A Reappraisal of its Role and Status', *OSAPh* 7, 59-95.
- Bochenski, I.M. (1947), *La logique de Théophraste* (Fribourg).
- Bonhöffer, A. (1890/1968), *Epiktet und die Stoa* (Stuttgart; repr. Stuttgart-Bad Cannstatt).
- Boyancé, P. (1971), 'Die Stoischen Gottesbeweise nach Cicero (De natura deorum, Buch II)', in: K. Büchner (ed.), *Das Neue Cicero-Bild*. Wege der Forschung XXVII (Darmstadt) 446-88. Transl. of: 'Les preuves stoiciennes de l'existence des dieux d'après Cicéron (De natura deorum, livre II)', *Hermes* 90 (1962) 45-71.
- Bréhier, E. (1951), *Chrysippe et l'ancien Stoïcisme*, nouvelle édition revue (Paris).
- Brunschwig, J. (ed.) (1978), *Les Stoïciens et leur Logique* (Paris).
- , (1980), 'Proof defined', in Schofield (1980a), 125-60.
- , (1991), 'On a book-title by Chrysippus: "On the fact that the ancients admitted dialectic along with demonstrations"', *OSAPh*, Suppl. Vol.
- Buffière, F. (1956), *Les mythes d'Homère et la pensée Grecque* (Paris).
- Burnyeat, M.F. (1982), 'The origins of non-deductive inference', in: Barnes *et al.* (1982) 193-238.
- , (ed.) (1983), *The Skeptical Tradition* (Berkeley etc.).
- Cornford, F.M. (1937), *Plato's Cosmology: The Timaeus of Plato Translated with a Running Commentary* (London).
- Couissin, P. (1929), 'L'origine et l'évolution de l'EPOXÉ', *REG* 42, 373-97.
- , (1929/83), 'The Stoicism of the New Academy', in: M.F. Burnyeat (ed.) (1983), 31-63; transl. of 'Le Stoïcisme de la Nouvelle Académie', *Revue d'histoire de la philosophie* 3 (1929) 241-76.
- Dahlmann, H. (1928), *De philosophorum Graecorum sententiis ad loquellae originem pertinentibus capita duo* (diss. Leipzig).

- , (1964), *Varro und die hellenistischen Sprachtheorie* (Berlin/ Zürich).
- Debru, A. (1994) 'L' experimentation chez Galien', *ANRW* II 37.4, 1718-56.
- Deichgräber (1930), *Die griechischen Empirikerschule*. Sammlung der Fragmente und Darstellung der Lehre (Berlin; repr. Berlin/Zürich 1965).
- De Lacy, Ph. (1948), 'Stoic Views of Poetry', *AJPh* 69, 241-69.
- , (1972), 'Galen's Platonism', *AJPh* 93, 27-39.
- , (1979), 'Galen's Concept of Continuity', *GRBS* 26, 355-69.
- , (ed.) (1978-84), *Galen: On the Doctrines of Hippocrates and Plato*, Bd.I-II: Introduction, Edition, Translation. Bd.III: Commentary and Indices. *Corpus Medicorum Graecorum* V, 4, 1, 2 (Berlin).
- , (1988), 'The Third Part of the Soul', in Vegetti and Manuli (1988) 43-63.
- Diller, H. (1933), 'Zur Hippokratesauffassung des Galen', *Hermes* 68, 167-82; repr. in Diller (1973) 3-16.
- , (1936), 'Eine stoisch-pneumatische Schrift im Corpus Hippocraticum', *Sudhoffs Arch. Gesch. Med. Naturwiss.* 29, 178-95; repr. in Diller (1973) 17-30.
- , (1973), *Kleine Schriften zur antiken Medizin* (Berlin/New York) 1973
- , (1974), 'Empirie und Logos: Galens Stellung zu Hippocrates und Platon', in K. Döring and W. Kuhlmann (eds.), *Studia Platonica*. Festschrift H. Gundert (Amsterdam) 227-38
- Dillon, J. (1977), *The Middle Platonists: A Study of Platonism 80 BC to AD 220* (London).
- Dillon, J. and Long, A.A. (eds.) (1988), *The Question of "Eclecticism"* (Berkeley).
- Donini, P. (1980), 'Motivi filosofici in Galeno', *La parola del passato* 35 (1980) 333-70.
- , (1982), *Le scuole l'anima l'impero: La filosofia antica da Antioco a Plotino* (Torino).
- , (1988a), 'The history of the concept of eclecticism', in Long and Dillon (1988) 15-33.
- , (1988b), 'Tipologia degli errori e loro correzione secondo Galeno', in Manuli and Vegetti (1988) 65-116.
- , (1992), 'Galeno e la filosofia', *ANRW* II 36.5, 3484-3504.
- Dubuisson, M. (1976-77), *OI AMΦI TINA OI ΠΕΡΙ TINA: L'Évolution des sens et des emplois* (diss. Liège).
- Evans, J.D.G. (1977), *Aristotle's Concept of Dialectic* (Cambridge).
- Eijk, van der, Ph. J. et al. (eds.) (1995), *Ancient Medicine in its Socio-cultural Context*, two vols. (Leiden).
- Fillion-Lahille, J. (1984), *Le De ira de Sénèque et La philosophie stoïcienne des passions* (Paris).
- Frede, M. (1974a), 'Stoic vs. Aristotelian Syllogistic', *Archiv für Geschichte der Philosophie* 56, 1-32; repr. in Frede (1987) 99-124.
- , (1974b), *Die Stoische Logik* (Göttingen).
- , (1978), 'The Principles of Stoic Grammar', in Rist (1978) 27-75; repr. in Frede (1987) 301-37.
- , (1981), 'On Galen's Epistemology', in Nutton (1981) 65-86; repr. in Frede (1987) 279-98.
- , (1983), 'The Stoics and Skeptics on Clear and Distinct Impressions', in Burnyeat (1983) 65-94; repr. in Frede (1987) 151-76.
- , (1985), *Galen, Three Treatises On the Nature of Science* (Indianapolis).
- , (1986), 'The Stoic doctrine of the affections of the soul', in M. Schofield and G. Striker (eds.), *The Norms of Nature: Studies in Hellenistic Ethics* (Cambridge/Paris) 93-110.
- , (1987) *Essays in Ancient Philosophy* (Oxford).
- Furley, D.J. and Wilkie J.S. (1984), *Galen on Respiration and the Arteries*, (Princeton).

- Ganter, F.L. (1894), 'Das stoische System der αἰσθησις', *Philologus* 53, 465-504.
- Gercke, A. (1885), *Chrysippea* (Lipsiae).
- Gill, C. (1983), 'Did Chrysippus understand Medea?', *Phronesis* 28, 136-49.
- Goldschmidt, V. (1989), *Le système Stoïcien et l'idée de temps* (Paris).
- Glucker, J. (1978), *Antiochus and the Late Academy* (Göttingen).
- Gould, J.B. (1970), *The Philosophy of Chrysippus*. *Philosophia Antiqua* XXVII (Leiden).
- Görler, W. (1977), 'Ἀσθενὴς συγκατάθεσις: zur stoischen Erkenntnistheorie', *WuJA N.F.* 3, 83-92.
- Hadot, P. (1987), 'Théologie, exégèse, révélation, écriture, dans la philosophie grecque', in: M. Tardieu (ed.), *Les règles de l'interprétation* (Paris) 13-34.
- Hahn, D. (1977), *The Origins of Stoic Cosmology* (Columbus Ohio).
- Hankinson, R.J. (1988), 'Galen Explains the Elephant', in M. Matthen and B. Linsky (eds.), *Philosophy and Biology*, *Canadian Journal of Philosophy*, Suppl. Vol. 14, 135-57.
- , (1989), 'Galen and the best of all possible worlds', *CQ* 39, 206-27.
- , (1990), 'Saying the Phenomena', *Phronesis* 35, 194-215 (critical notice on von Staden [1989]).
- , (1991a), 'Galen's Anatomy of the Soul', *Phronesis* 36.2, 197-233.
- , (1991b), 'A Purely Verbal Dispute? Galen on Stoic and Academic Epistemology', *Revue Internationale de Philosophie*, Volume 45, No. 178.3, 267-300.
- , (1991c), *Galen on the Therapeutic Method Books I and II* (Oxford).
- , (1992b), 'Galen's Philosophical Eclecticism', *ANRW* II 36.5, 3505-22.
- , (1993), 'Actions and passions: affection, emotion and moral self-management in Galen's philosophical psychology', in J. Brunschwig and M.C., Nussbaum (1993) 184-222.
- , (1994), 'Galen on the Use and Abuse of Language', in S. Everson (ed.), *The Philosophy of Language*. *Companions to Ancient Philosophy*, vol. III (Cambridge).
- , (1995), *The Sceptics* (London/New York).
- Harris, C.R.S. (1973), *The Heart and the Vascular System in ancient Greek Medicine from Alcmaeon to Galen* (Oxford).
- Huby, P.M. (1989), 'Cicero's *Topics* and Its Peripatetic Sources', in W.W. Fortenbaugh and P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos*, *Rutgers University Studies in the Classical Humanities*, Vol. IV (New Brunswick/London) 61-77.
- Inwood, B. (1984), 'Hierocles: Theory and Argument in the Second Century AD', *OSAPh* 2, 151-83.
- , (1985), *Ethics and Human Action in Early Stoicism* (Oxford).
- Ioppolo, A.M. (1986), *Opinione e scienza: Il dibattito tra Stoici e Accademici nel III e nel II secolo a. C.* (Napoli).
- Jaeger, W.W. (1913), 'Das Pneuma im Lykeion', *Hermes* 48, 29-74; repr. in *Scripta Minora*, vol. 1 (Roma 1960) 57-102.
- Jahn, T. (1987), 'Zum Wortfeld "Seele-Geist" in der Sprache Homers. Zetemata 83 (München).
- Kerferd, G.B. (1972), 'The Search for Personal Identity in Stoic Thought', *Bulletin of the John Rylands University Library of Manchester* 55, 177-96.
- , (1978), 'The Problem of Synkatathesis and Katalêpsis in Stoic Doctrine', in Brunschwig (1978) 251-72.
- Kollesch, J. and Nickel, D. (eds.) (1993), *Galen und das hellenistische Erbe*. *Sudhoffs Archiv*, Heft 32. (Stuttgart).
- Kudlien, F. (1991), ' "Endeixis" as a scientific term: A) Galen's usage of the word (in medicine and logic)', in F. Kudlien and R.J. Durling (1991) 103-111.

- Kudlien, F. and Durling, R. (eds.) (1991), *Galen's Method of Healing: Proceedings of the 1982 Galen Symposium* (Leiden).
- Laks, A. (1983), *Diogène d'Apollonie. La dernière cosmologie présocratique* (Lille).
- Le Blond, J.M. (1938), *EULOGOS et l'argument de convenance chez Aristote* (Paris).
- Le Boulluec, A. (1975), 'L'allégorie chez les Stoïciens', *Poétique* 23, 301-22.
- Lloyd, G.E.R. (1991), *Methods and Problems in Greek Science*. Selected Papers. (Cambridge).
- , (1993), 'Galen on Hellenistics and Hippocrateans: contemporary battles and past authorities', in: Kollesch and Nickel (1993) 125-43; also in Lloyd (1991) 398-416.
- Lloyd, A.C. (1971), 'Grammar and metaphysics in the Stoa', in Long (1971a) 58-75.
- Loenen, D. (1965), *Eugeneia: Adel and adeldom binnen de Atheense democratie* (Amsterdam).
- Long, A.A. (ed.) (1971a), *Problems in Stoicism* (London).
- , (1971b), 'Language and Thought in Stoicism', in Long (1971a) 75-113.
- , (1978a), 'Dialectic and the Stoic Sage', in Rist (1978) 101-24.
- , (1978b), 'The Stoic Distinction between Truth (ἡ ἀλήθεια) and the True (τὸ ἀληθές)', in Brunschwig (1978) 297-316.
- , (1980), 'Stoa and Sceptical Academy: origins and growth of a tradition', *Liverpool Classical Monthly* 5.8, 161-74.
- , (1982), 'Soul and Body in Stoicism', *Phronesis* 27, 34-57.
- , (1986), *Hellenistic Philosophy: Stoics, Epicureans, Sceptics* (London).
- , (1988), 'Ptolemy on the Criterion: An Epistemology for the Practicing Scientist', in Dillon and Long (1988) 176-207; repr. in P. Huby and G. Neal (eds.), *The Criterion of Truth: Essays in honour of George Kerferd together with a text and translation (with annotations) of Ptolemy's On the Kriterion and Hegemonikon* (Liverpool 1989) 151-78.
- , (1992), 'Stoic Readings of Homer', in R. Lamberton and J.J. Keaney (eds.), *Homer's Ancient Readers. The Hermeneutics of Greek Epic's Earliest Exegetes* (Princeton, NJ) 41-66.
- Long, A.A. and Sedley, D.N. (1987), *The Hellenistic Philosophers*, volume 1: *Translations of the principal sources with philosophical commentary*; volume 2: *Greek and Latin texts with notes and biography* (Cambridge).
- Mani, N. (1965), *Die historischen Grundlagen der Leberforschung*, I. Teil (Basel-Stuttgart).
- Mansfeld, J. (1979), 'Providence and the Destruction of the Universe in Early Stoic Thought', in Vermaseren, M. J. (ed.), *Studies in Hellenistic Religions, Études Préliminaires aux Religions Orientales dans l'Empire Romain* 78 (Leiden) 129-88.
- , (1982), 'The Cleanthes fragment in Cicero, De natura deorum II 24', in J. den Boeft and A.H.M. Kessels (eds.), *Actus. Studies in Honour of H.L.W. Nelson*, Utrecht 1982, 203-10; repr. (as Study nr. IV) in J. Mansfeld, *Studies in Later Greek Philosophy and Gnosticism*. Variorum Revised Editions and Reprints (London).
- , (1985a), 'Aristotle and Others on Thales, or the Beginnings of Natural Philosophy. With Some Remarks on Xenophanes', *Mnemosyne* 38, 109-29. Repr. as Study Nr. V in Mansfeld (1990c) 126-46.
- , (1985b), 'Myth Science Philosophy: A Question of Origins', in W.M. Calder III et al. (eds.), *Hypatia*. Festschrift H.E. Barnes (Boulder Co.) 45-65. English version of 'Mito scienza filosofia: una questione di origini', in *Quaderni di Storia* 10 (1984) 43-67; repr. in Mansfeld (1990c) 1-22.
- , (1986), 'Diogenes Laertius on Stoic Philosophy', *Elenchos* 7 (1986) 297-382. Repr. in Mansfeld (1990c) 343-428.



- , (1988), 'Diaphonia: the Argument of Alexander De fato Chs.1-2', *Phronesis* 33 (1988) 181-207.
- , (1990a), 'Chrysippus and the Placita', *Phronesis* 34 (1990) 311-42.
- , (1990b), 'Doxography and Dialectic: The *Sitz im Leben* of the *Placita*', *ANRW II* 36.4, 3056-3229.
- , (1990c) *Studies in the Historiography of Greek Philosophy* (Assen/Maastricht).
- , (1991), 'The Idea of the Will in Chrysippus, Posidonius, and Galen,' in J.J. Cleary (ed.), *Boston Area Colloquia on Ancient Philosophy* series, Vol. VII, 107-45.
- , (1992a), 'Physikai doxai and *Problēmata physika* from Aristotle to Aëtius (and Beyond)', in W.W. Fortenbaugh and D. Gutas (eds.), *Theophrastus. His Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities Vol. V (New Brunswick/London) 63-111.
- , (1992b), *Heresiography in Context. Hippolytus' Elenchos as a Source for Greek Philosophy*, *Philosophia antiqua* LVI (Leiden).
- , (1994), *Prolegomena. Questions to be settled before the study of an author, or text* (Leiden).
- Manuli, P. (1988), 'La passione nel De placitis Hippocratis et Platonis', in Manuli-Vegetti (1988) 185-214.
- Manuli, P., and Vegetti, M. (eds.) (1988), *Le opere psicologiche di Galeno, Elenchos* 13 (Napoli).
- Moraux, P. (1973), *Der Aristotelismus bei den Griechen*. 1 Bd. Die Renaissance des Aristotelismus im I. Jh. v. Chr. (Berlin/New York).
- , (1979), 'Galien comme philosophe: la philosophie de la nature', in Nutton (1981) 87-117.
- , (1984), *Der Aristotelismus bei den Griechen von Andronikos bis Alexander von Aphrodisias*: zweiter Band: der Aristotelismus im I. und II. Jh. b. Chr. (Berlin/New York).
- , (1985), 'Galen and Aristotle's *De Partibus Animalium*', in A. Gotthelf (ed.), *Aristotle on Nature and Living Things*: Philosophical and Historical Studies Presented to David M. Balme (Pittsburgh/Bristol) 327-43.
- Most, G.W. (1989), 'Cornutus and Stoic Allegoresis: A Preliminary Report', *ANRW II* 36.3, 2014-65.
- Müller, I von (1897), 'Ueber Galens Werk vom Wissenschaftlichen Beweis', *Abh. Bayer. Ak. d. Wiss. München* 20, 403-78.
- Nickel, D. (1989), *Untersuchungen zur Embryologie Galens*, *Schriften zur Geschichte und Kultur der Antike* 27 (Berlin).
- Nussbaum M.C. (1993), 'Poetry and the passions: two Stoic views', in Nussbaum and Brunschwig (1993) 97-149.
- , and J. Brunschwig (eds.) (1993), *Passions & Perceptions*. Studies in Hellenistic Philosophy (Cambridge).
- Nutton, V. (ed.) (1981), *Galen: Problems and Prospects*: A Collection of Papers submitted at the 1979 Cambridge Conference (Cambridge).
- , (1984), 'Galen in the Eyes of His Contemporaries', *Bull. Hist. Med.* 58, 315-23; repr. as Study nr. III in *From Democedes to Harvey. Variorum* (London).
- , (1987), 'Galen's Philosophical Testament: "On my own opinions"', in J. Wiesner (ed.), *Aristoteles. Werk und Wirkung II* (Berlin/New York) 27-51.
- Onians, R.B. (1951), *The Origins of European Thought about the Body, the Mind, the Soul, the World, Time and Fate*, Cambridge (repr. 1989).
- Ophuijsen, J. van (1994), 'Where have the Topics gone?' in W.W. Fortenbaugh and D.C. Mirhady (eds.), *Peripatetic Rhetoric after Aristotle* (Plymouth) 131-173.

- Owen, G.E.L. (1961), 'Tithenai ta phainomena', in *Aristote et les problèmes de méthode*, ed. S. Mansion, Papers of the Second Symposium Aristotelicum, Louvain, 83-103; repr. in M. Nussbaum (ed.), G.E.L. Owen, *Logic, Science and Dialectic*: Collected Papers in Greek Philosophy, (London 1986) 239-51.
- Pachet, P. (1975), 'La deixis selon Zénon et Chrysippe', *Phronesis* 20, 241-6.
- Pembroke, S.G. (1971), 'Oikeiôsis', in Long (1971a) 114-49.
- Pohlenz, M. (1940), 'Grundfragen der Stoischen Philosophie', *Abh. Ges. Wiss. Gött.*, Phil.-Hist. Kl., 3. Folge 26, Göttingen; repr. in L. Tarán (ed.), *Stoicism* (London/New York 1987).
- , (1980), *Die Stoa: Geschichte einer Geistigen Bewegung*; 2. Bd. (Göttingen).
- , (1984), *Die Stoa: Geschichte einer Geistigen Bewegung*; 1. Bd. (Göttingen).
- Price, A.W. (1995), *Mental Conflict* (London/New York).
- Reinhardt, K. (1921), *Poseidonios* (München).
- Repici, L. (1993), 'The Stoics and the Elenchos', in K. Döring and Th. Ebert (Hrsg.), *Dialektiker und Stoiker. Zur Logik der Stoa und ihrer Vorläufer*. (Stuttgart) 253-69.
- Rescher, N. and Marmura, M. (1969), *Alexander of Aphrodisias: the Refutation of Galen's treatise on the theory of motion*, Islamabad (Islamic Research Institute).
- Rieth, O. (1933), *Grundbegriffe der stoischen Ethik*: Eine traditionsgeschichtliche Untersuchung, *Problemata* 9 (Berlin).
- Rist, J.M. (ed.) (1978), *The Stoics* (Berkeley etc.).
- Rüsch, F. (1930/68), *Blut, Leben und Seele*. Studien zur Geschichte und Kultur des Altertums, 5. Erg.-Bd., (Paderborn, repr. New York/London 1968).
- Sandbach, F.H. (1969), (ed.), *Plutarch's Moralia*, vol. xv (Loeb Classical Library, Cambridge MA).
- , (1971a), 'Phantasia Kataleptike', in Long (1971a) 9-21.
- , (1971b), 'Ennoia and Prolepsis', in Long (1971a) 22-37.
- Schian R. (1973), *Untersuchungen über das 'argumentum e consensu omnium'*. *Spudasmata* XVIII (Hildesheim/New York).
- Schofield, M. et al. (eds.) (1980a), *Doubt and Dogmatism: Studies in Hellenistic Epistemology* (Oxford).
- Schofield (1980b), 'Preconception, Argument and God', in Schofield (1980a) 283-308.
- Schofield (1983), 'The Syllogisms of Zeno of Citium', *Phronesis* 28, 31-58.
- Sedley, D.N. (1982), 'On Signs', in: Barnes et al. (1982) 239-272.
- Siegel, R. (1968), *Galen's System of Physiology and Medicine*: An analysis of his doctrines and observations on bloodflow, respiration, humors and internal diseases (Basel/New York).
- Smith, W.D. (1979), *The Hippocratic Tradition* (Ithaca/London).
- Snell, B. (1975), 'Die Auffassung des Menschen bei Homer', in *Die Entdeckung des Geistes: Studien zur Entstehung des Europäischen Denkens bei den Griechen* (Göttingen) 13-29.
- Solmsen, F. (1961a), 'Greek Philosophy and the Discovery of the Nerves', *MH* 18, 150-97; repr. in Solmsen (1968) 536-83.
- , (1961b), 'αἰσθησις in Aristotelian and Epicurean Thought', *Med. Kon. Ned. Ak. Wet., Afd. Letterk.*, N.R. 24, 241-62; repr. in Solmsen (1968) 612-33.
- , (1961c), 'Cleanthes or Posidonius? The Basis of Stoic physics', *Med. Kon. Ned. Akad., Afd. Lett.*, N.R. vol. 24, 265-89; repr. in Solmsen (1968) 436-60.
- , (1968), *Kleine Schriften* vol. 1 (Hildesheim).
- Sorabji, R.R.K. (ed.) (1990), *Aristotle Transformed: the Ancient Commentators and their Influence* (London).
- Staden, H. von (1975), 'Experiment and Experience in Hellenistic Medicine', *Bulletin of the Institute of Classical Studies* 22, 178-199.

- , (1978), 'The Stoic Theory of Perception and its "Platonic" critics', in: Machamer, P.K. and Turnbull, R.G. (eds.): *Studies in Perception: Interrelations in the History of Philosophy and Science* (Columbus Ohio) 96-136.
- , (1989), *Herophilus: The Art of Medicine in Early Alexandria* (Cambridge).
- Steckerl, F. (1958), *The Fragments of Praxagoras of Cos and His School* (Leiden).
- Stein, L. (1886-8), *Die Psychologie der Stoa*, 2 Bde. (Berlin).
- Steinmetz, P. (1986), 'Allegorische Dichtung in der alten Stoa', *RhM* 129 (1986) 18-30.
- Steinthal, H. (1890), *Geschichte der Sprachwissenschaft bei den Griechen und Römern*, 2 Bde. (Berlin).
- Stern, J. (1893), *Homerstudien der Stoiker* (Lörrach).
- Straaten, M. van (1946), *Panétius, sa vie, ses écrits et sa doctrine avec une édition des fragments* (Amsterdam).
- Striker, G. (1974), "Κριτήριον τῆς ἀληθείας", *Nachr. Ak. d. Wiss. Gött. Phil.-Hist. Kl.* 2, 47-110.
- , (1980), 'Sceptical Strategies', in Schofield (1980a) 54-83.
- Stump, E. (1978), *Boethius's De topicis differentiis*, translated, with notes and essays on the text (Ithaca/London).
- , (1988) *Boethius's In Ciceronis Topica*, translated with notes and an introduction (Ithaca/London).
- Tae-Soo Lee (1984), *Die griechische Tradition der aristotelischen Syllogistik*. Eine Untersuchung über die Kommentare zu den *analytica priora* von Alexander von Aphrodisiensis, Ammonius und Philoponus. *Hypomnemata* 79 (Göttingen).
- Tieleman, T.L. (1991), 'Diogenes of Babylon and Stoic Embryology: Ps. Plutarch, *Plac.* V 15.4 Reconsidered', *Mnemosyne* 44 (1991) 106-25.
- , (1995a), 'Dialectic and Science: Galen, Herophilus and Aristotle on Phenomena', in Ph. van der Eijk-H.F.J. Horstmanshoff-P.J. Schrijvers (eds.), *Ancient medicine in its Socio-Cultural Context* (Amsterdam/Atlanta) GA, vol. II, 487-95.
- , (1995b) review article on T. Engberg-Pedersen, *The Stoic Theory of Oikeiosis: Moral Development and Social Interaction in Early Stoic Philosophy* (Aarhus 1990) and G. Magnaldi, *L'οἰκείωσις peripatetica in Ario Didimo e nel 'De finibus' di Cicerone* (Torino 1991), *Mnemosyne* 48 (1995) 226-35.
- , (1995c), 'Galen's Concept of Dialectic and its Middle Platonist Background', in M. Vegetti (ed.), *Atti di Seminario di studio sulla medicina antica in ricordo di Paola Manuli* (29-30 settembre 1992).
- , forthcoming 1, 'Chrysippus', in: D. Zeyl et al. (eds.), *The Encyclopedia of Classical Philosophy* (Westport, CT).
- , forthcoming 2, *Galen and Chrysippus On the Passions. Argument and Refutation in the De Placitis Books IV and V*
- Todd, R.B. (1976), *Alexander on Stoic Physics* (Leiden).
- Vegetti, M. (1981), 'Modelli di medicina in Galeno': in Nutton (1981) 47-65.
- , (1986), 'Tradizione e verità: Forme della storiografia filosofico-scientifica nel De Placitis di Galeno', in G. Cambiano (ed.) *Storiografia e dossografia nella filosofia antica* (Torino) 227-43.
- , (1990), 'I nervi dell'anima', in *Il vivente e l'anima*, <<BioLogica>> 4, Ancona: Transeuropea, 11-28; also in Kollesch and Nickel (1993) 63-77.
- Verbeke, G. (1968) 'La notion de propriété dans les *Topiques*', in G.E.L. Owen (ed.) *Aristotle On Dialectic*. Proceedings of the Third Symposium Aristotelicum (Oxford) 257-276.
- Veyne, P. (1983), *Les Grecs ont-ils cru à leur mythes?* Paris.
- Whittaker, J. (1987), 'Platonic Philosophy in the Early Centuries of the Empire', *ANRW* 36.1, 81-123.
- , (1990), (ed.), *Alcinoos: Enseignement des doctrines des Platon* (Paris).

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